

ALASKA

VOLUME IX



POPOF ISLAND, SHUMAGIN GROUP

SMITHSONIAN INSTITUTION

HARRIMAN ALASKA SERIES

VOLUME IX

INSECTS

PART II

BY

WILLIAM H. ASHMEAD, D. W. COQUILLET,
TREVOR KINCAID, and THEO. PERGANDE



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The remainder of the edition of Volumes I to V, and VIII to XIII, as also Volumes VI and VII in preparation, together with any additional volumes that may hereafter appear, will bear special Smithsonian title pages.

SMITHSONIAN INSTITUTION,

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HARRIMAN ALASKA EXPEDITION
WITH COOPERATION OF WASHINGTON ACADEMY OF SCIENCES

ALASKA

VOLUME IX

INSECTS

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BY WILLIAM H. ASHMEAD, D. W. COQUILLET,
TREVOR KINCAID AND THEO. PERGANDE



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PREFACE

It was originally intended to publish the entomological results of the Expedition in a single volume, but when the reports from the various specialists came in, the quantity of matter was so great that it was found necessary to divide it into two volumes. The present volume contains papers on the Diptera, Tenthredinoidea, Sphegoidea, Vespoidea, Formicidæ, and Hymenoptera. In the latter group, Mr. Ashmead tells us, less than 30 species were known from Alaska prior to the Harriman Expedition, while the number here recorded is 335, of which 201 are described as new to science. This extraordinary increase is due almost wholly to the indefatigable activity of the entomologist of the Expedition, Professor Kincaid.

C. HART MERRIAM,
Editor.

WASHINGTON, D. C.,
May 1, 1903.

CONTENTS

	PAGE
PREFACE.....	v
LIST OF ILLUSTRATIONS.....	ix
DIPTERA. By D. W. Coquillett.....	i
TENTHREDINOIDEA. By Trevor Kincaid	79
SPHEGOIDEA AND VESPOIDEA. By Trevor Kincaid.....	107
FORMICIDÆ. By Theo. Pergande.....	113
HYMENOPTERA. By William H. Ashmead.....	119
INDEX.....	275

ILLUSTRATIONS

PLATES

PLATE	PAGE
I. Popof Island, Shumagin Group.....	Frontispiece
II-IV. Hymenoptera	270-274

DIPTERA OF THE EXPEDITION

The following paper on the *Diptera* of the Expedition, by D. W. Coquillett, Division of Entomology, U. S. Department of Agriculture, was originally published in the Proceedings of the Washington Academy of Sciences, vol. 11, pp. 389-464, Dec. 7, 1900. It is here reprinted from the same electrotype plates, so that it may be quoted exactly as if it were the original. The original pagination has been preserved and transferred to the inner or hinge side of the page, where it is enclosed in brackets, thus [390]; while the consecutive pagination of the present volume has been added in the usual place. The present headpiece and title have been substituted for the running heading of the Academy's Proceedings and the original title, which was: *Papers from the Harriman Alaska Expedition. ix. Entomological Results (3): Diptera.* No other alterations have been made.

Since the original publication of this paper the author has described as new, under the name *Simulium fulvum*, the species here (p. 7 [393]) referred to *S. ochraceum* Walker. (See Proc. U. S. Nat. Mus., xxv, p. 96, 1902.)

The author desires to record the following additional corrections:

Page 5 [391]:

Eighteenth line from bottom, enclose 'Meigen' in parentheses.

Seventeenth line from bottom, for 'Anaclinia' read *Mycetophila*.

Page 8 [394]:

Twelfth line from bottom, enclose 'Linné' in parentheses.

Eleventh line from bottom, change 'Scatopse' to *Tipula*.

Page 10 [396]:

Eleventh line from bottom, enclose 'Fabricius' in parentheses.

Tenth line from bottom, change 'Ceratopogon' to *Chironomus*.

Page 13 [399], fifth and fourth lines from bottom, change 'disphana' to *diaphana*.

Page 19 [405], fourth line from bottom, for 'Pachyrrhina' read *Pachyrhina*.

Page 20 [406]:

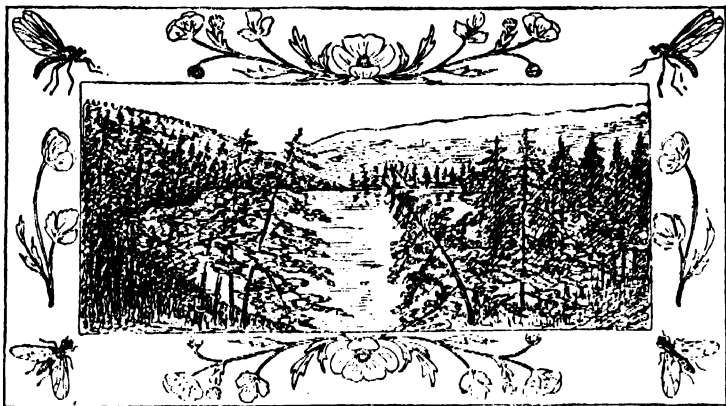
First line, for 'Xylophagidæ' read *Leptidæ*.

Sixteenth line from bottom, for 'Stratiomyiidæ' read *Stratiomyidæ*.

Page 21 [407], twentieth line from bottom, for 'Empididæ' read *Empidæ*.

Page 55 [441], thirteenth line from bottom, for 'Anthomyiidæ' read *Anthomyidæ*.

EDITOR.



DIPTERA OF THE EXPEDITION

BY D. W. COQUILLET

THE series of Dipterous insects collected by Professor Trevor Kincaid while a member of the Harriman Expedition to Alaska during the summer of 1899 is one of the most interesting and valuable collections of insects of that order that the U. S. National Museum has acquired for many years. The specimens themselves, almost without exception, are in first-class condition, and each is accompanied by a label giving the exact locality and date of capture.

The collection contains 2,423 specimens, representing 276 species, distributed in 138 genera and 36 families. One genus and 63 of the species are believed to be new to science, and are described in this paper. In addition to the specimens referred to above, there are a number of others which it is quite impossible to correctly classify in the present condition of the science; these are chiefly female specimens belonging to groups in which the sexes are very dissimilar in appearance, and the principal classificatory characters are present in the male sex alone, obscure groups which have not as yet been thoroughly studied in this country, and for the proper elucidation of which several years of careful study will be required.

As might naturally have been expected, the greater number of the species represented in the present collection are such as occur over the more northern portion of this Continent, not extending farther southward than the mountains of New Hampshire and Colorado. Besides the new genus *Ornithodes*, which belongs to the family Tipulidæ, the most interesting addition to our genera is the genus *Telmatogeton*, of the family Chironomidæ, heretofore known only from St. Paul Island, in the Indian Ocean.

Family MYCETOPHILIDÆ.

Diadocidia borealis sp. nov.

Head and antennæ dark brown, two basal joints of the latter, also the proboscis and palpi, yellow; thorax polished, yellow, the dorsum, except the front corners, dark brown, scutellum yellow, metanotum brown; abdomen dark brown, slightly polished, its hairs yellowish; coxæ and femora light yellow, tibiæ and tarsi brown, front tarsi slender; knob of halteres yellowish brown; wings hyaline, densely covered with short hairs, auxiliary crossvein present, tip of first vein about opposite apex of anterior branch of the fifth. Length 4 mm. A male specimen, collected June 3.

Habitat.—Lowe Inlet, British Columbia.

Type.—Cat. no. 5190, U. S. National Museum.

Closely related to the European *D. ferruginosa* Meigen, of which species the U. S. National Museum contains two specimens from the White Mountains, New Hampshire; but in that species the apex of the first vein is far before the tip of the anterior branch of the fifth, the auxiliary crossvein is wanting, etc.

Hesperinus brevifrons Walker.

Hesperinus brevifrons WALKER, List Dipt. Ins. British Museum, 1, p. 81, 1848.

Popof Island, Alaska: A single specimen, collected July 8. This species was originally described from Hudson Bay, British America, and has been recorded from the mountains of New Hampshire and Colorado. The genus *Hesperinus* has heretofore been placed in the family Bibionidæ, but it differs from all the other members of that family by the elongated antennæ. In this and other structural characters it agrees very well with the members of the present family.

***Necempheria kincaidi* sp. nov.**

Head and its members black, second joint of antennæ yellow, about one-half as long as the third, the three ocelli in a transverse row and widely separated from each other; thorax black, opaque, gray pruinose, the mesonotum marked with four polished vittæ, scutellum black, the base narrowly yellow, its hairs and those of the thorax golden yellow; abdomen brownish black, slightly polished, its hairs yellowish; coxæ and femora yellow, tibiæ yellowish brown, tarsi dark brown, front tarsi toward their apices noticeably higher than wide; halteres yellow; wings hyaline, bare, auxiliary vein ending in the first before middle of inner submarginal cell, the latter about twice as long as wide, anterior fork of fourth vein about ten times as long as preceding section of this vein, fifth vein forking far before small crossvein, the latter shorter than first section of third vein. Length 6 mm. A female specimen, collected July 8.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5191, U. S. National Museum.

Readily distinguished by its venation from any of the described species. Respectfully dedicated to Professor Trevor Kincaid, whose extensive captures have added so much to our knowledge of the fauna of this interesting region.

***Anaclinia nemoralis* Meigen.**

Anaclinia nemoralis MEIGEN, System. Besch. Eur. Zweif. Ins., 1, p. 265, 1818,

Sitka, Alaska: Two specimens, collected June 16. A European species now for the first time reported from this country.

***Boletina grænlandica* Staeger.**

Boletina grænlandica STAEGER, Kröjer's Natur. Tidsskrift, p. 356, 1845.

Berg Bay, June 10; Yakutat, June 21; Virgin Bay, June 26; Orca, June 27; Popof Island, Alaska, July 12: Six specimens. Originally described from Greenland. Specimens are in the U. S. National Museum from the mountains of New Hampshire and Colorado.

***Boletina inops* sp. nov.**

Black, the second joint of antennæ and base of the third, the palpi, halteres, coxæ, femora, and male hypopygium yellow, tibiæ brownish yellow; hairs of body yellow; thorax subopaque, thinly gray pruinose; abdomen subopaque; bristles of inner side of middle tibiæ slightly shorter than the diameter of each tibia; wings hyaline, tip of auxiliary vein slightly before base of third vein, no auxiliary crossvein, fourth vein forking slightly beyond, the fifth about opposite to, base of third

vein; third joint of antennæ twice as long as wide, hypopygium of male at least one-half longer than the longest segment of the abdomen preceding it. Length 4.5 mm. A specimen of each sex, taken June 21 and 27.

Habitat.—Yakutat and Orca, Alaska.

Type.—Cat. no. 5192, U. S. National Museum.

Readily recognized among the black forms by the unspotted wings, which have no indication of an auxiliary crossvein.

***Sciara abbreviata* Walker.**

Sciara abbreviata WALKER, List Dipt. Ins. British Museum, 1, p. 109, 1848.

Popof Island, Alaska: Three females, collected June 12, 14, and 16. Originally described from Hudson Bay, British America.

***Sciara grænlandica* Holmgren.**

Sciara grænlandica HOLMGREN, Öfersigt Vet.-Akad. Förhand., p. 104, 1872.

Popof Island, Alaska: Three females, collected July 10. Heretofore reported only from Greenland.

***Sciara iridipennis* Zetterstedt.**

Sciara iridipennis ZETTERSTEDT, Insecta Lapp., p. 827, 1840.

Popof Island, July 12 and 15; Muir Inlet, Alaska, June 12: Eight specimens. Originally described from Lappland, and also reported from Greenland.

***Sciara borealis* Rübsaamen.**

Sciara borealis RÜBSAAMEN, Bibliotheca Zool., p. 109, 1898.

Sitka, Alaska: Two specimens, collected June 16. Originally described from Greenland.

***Sciara tridentata* Rübsaamen.**

Sciara tridentata RÜBSAAMEN, Bibliotheca Zool., p. 107, 1898.

Lowe Inlet, British Columbia: A single specimen, collected June 3. It was originally described from Greenland.

***Sciara expolita* sp. nov.**

Head black, mouth parts and antennæ blackish brown, third joint of antennæ almost twice as long as broad, the eighth joint the same, its upper and lower edges parallel; thorax black, mesonotum highly polished, humeri pale yellow, prolonged as a triangular spot on the pleura; scutellum and metanotum black, the latter highly polished; abdomen pale yellow, the sides, hind margin of the segments, also the apical portion of the abdomen beyond the sixth segment, black, the end lamella slightly longer than broad; coxæ and femora pale yellow,

tibiæ brownish yellow, tarsi brown; halteres dark brown, base of the peduncle yellow; wings grayish hyaline, last section of first vein distinctly longer than the preceding section, apex of first vein noticeably beyond the forking of the fourth, lower fork of the fourth vein considerably shorter than the preceding section of this vein. Length 4 mm. A female specimen, collected June 16.

Habitat.—Sitka, Alaska.

Type.—Cat. no. 5193, U. S. National Museum.

Family SIMULIIDÆ.

Simulium ochraceum Walker.

Simulium ochraceum WALKER, Trans. Ent. Soc. London, p. 332, 1861.

Lowe Inlet, British Columbia, June 6; Sitka, Alaska, June 16; Virgin Bay, June 26; Kukak Bay, Alaska Peninsula, July 4: Ten specimens. Originally described from Mexico. The U. S. National Museum contains specimens collected in the mountains of Colorado and Montana.

Simulium invenustum Walker.

Simulium invenustum WALKER, List Dipt. Ins. Brit. Mus., 1, p. 112, 1848.

Simulium pecuarum RILEY, Report U. S. Dept. Agric., p. 512, 1886.

Metlakahtla, June 4; Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Kukak Bay, July 4; Popof Island, July 8, 10, 11 and 16; Kadiak, Alaska, July 20: Twelve specimens. Originally described from Hudson Bay, British America. In the United States its known range extends from New Hampshire southward to Mississippi, and westward to Colorado.

Simulium venustum Say.

Simulium venustum SAY, Jour. Acad. Nat. Sciences, Philadelphia, p. 28, 1823.

Simulium molestum HARRIS, Insects Inj. Vegetation, 3d edit., p. 601, 1862.

Simulium piscicidium RILEY, Amer. Entomologist, 11, p. 367, 1870.

Metlakahtla, June 4; Kukak Bay, July 4; Popof Island, July 8 to 11: Twelve specimens. The type locality of this species is given by Say as "Shippingport, Falls of the Ohio." Shippingport is the old landing on the Kentucky side below the Falls of the Ohio. Its site is covered by the present city of Louisville, Kentucky. This species occurs all over the United States, as well as in Canada and British Columbia.

Simulium vittatum Zetterstedt.

Simulium vittatum ZETTERSTEDT, Insecta Lapponica, p. 803, 1840.

Simulium argus WILLISTON, North American Fauna, No. 7, p. 253, 1893.

Yakutat, June 21; Kadiak, Alaska, July 20: Twelve specimens.

A European species which is also reported as occurring in Greenland. It ranges over the northern portion of the United States, extending as far southward as New Jersey, Kansas, and southern California.

Family BIBIONIDÆ.

Bibio variabilis Loew.

Bibio variabilis LOEW, Berliner Entom. Zeitsch., p. 53, 1864.

Lowe Inlet, British Columbia, June 3; Metlakahtla, June 4; Berg Bay, June 10; Muir Inlet, June 12; Sitka, June 16; Yakutat, Alaska, June 21: Twenty-two males and eight females. Loew's original specimens came from Sitka and from New Hampshire. The species also occurs in Oregon.

Bibio obscurus Loew.

Bibio obscurus LOEW, Berliner Entom. Zeitsch., p. 52, 1864.

Yakutat, June 21; Saldovia, Alaska, July 21: Four males and one female. This species was originally described from the vicinity of Hudson Bay, British America.

Dilophus serraticollis Walker.

Dilophus serraticollis WALKER, List Dipt. Ins. Brit. Museum, 1, p. 117, 1848.

Metlakahtla, June 4; Berg Bay, June 10; Muir Inlet, June 12; Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Kukak Bay, July 4; Popof Island, July 12; Saldovia, July 21; Juneau, Alaska, July 26: Twenty-two males and thirty-four females. Originally described from Hudson Bay, but also occurs in Canada and Colorado.

Scatopse notata Linné.

Scatopse notata LINNÉ, Fauna Suecica, p. 1773, 1761.

Popof Island, July 8 and 10; Juneau, Alaska, July 28: Eight specimens. A European species, which has also been reported as occurring in Greenland. It ranges as far southward at least as Alabama.

Family CULICIDÆ.

Culex impiger Walker.

Culex impiger WALKER, List Dipt. Ins. Brit. Museum, 1, p. 6, 1848.

Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Popof Island, Alaska, July 8 to 16: Fifty female specimens. This species was originally described for the vicinity of Hudson Bay, British America, and ranges southward to Jamaica, West Indies.

Culex consobrinus Desvoidy.

Culex consobrinus DESVOIDY, Memoirs Soc. Hist. Nat. Paris, p. 408, 1827.

Sitka, June 16; Yakutat, Alaska, June 21: Three female specimens. Originally described from Pennsylvania; at the east it does not appear to occur south of the State mentioned, but ranges northward into British America. West of the Mississippi, however, it ranges southward to Nebraska, New Mexico, and southern California.

Family CHIRONOMIDÆ.**Telmatogeton alaskensis** sp. nov.

Head and its members brownish black, the front velvet black, first joint of antennæ velvet brown; antennæ about as long as the head, the first joint nearly three times as wide as the others, the latter subcylindrical, the last joint slightly wider than the others and subconical in profile; thorax opaque, black, the lateral margins and upper part of pleura varied with yellowish; scutellum, metonotum, and abdomen brownish black, the lateral margins of the latter and hind margins of the ventral segments, yellow; coxæ mottled black, brown and yellowish, remainder of legs blackish brown, front femora each bearing a transverse, contiguous pair of blunt tubercles near the tip of the under side, and just beyond them a pair of rather widely separated cavities; front tibiæ each bearing a blunt tubercle on the under side near the base, the inner side of each front tibia rather strongly dilated at its first third; first joint of the tarsi nearly three times as long as the second, each of the last three joints slightly over one-half as long as the second joint, claws cleft almost to the middle; halteres whitish; wings brownish gray, veins brown, first section of the fourth vein yellow, third vein on its basal portion almost touching the first; length 4.5 mm. Four male specimens, collected June 21.

Habitat.—Yakutat, Alaska.

Type.—Cat. no. 5194, U. S. National Museum.

The present genus, which is new to our fauna, was founded on a species inhabiting St. Paul Island, in the southern part of the Indian Ocean. Our species agrees very well with Dr. Schiner's description and figures except in the structure of the legs, but these are not sufficiently different to warrant the establishing of a separate genus for the present form.

Chasmatonotus univittatus sp. nov.

Black, the bases of antennæ, front corners and hind end of thorax, pleura, except the lower portion and one or two spots; halteres, trochan-

ters, and bases of femora and of tibiæ, yellow; posterior margins of abdominal segments whitish; mesonotum polished; abdomen subopaque; wings black, the extreme base and a vitta extending from it three-fourths the length of the wing, between the fourth and fifth veins, white; length 2.5 mm. Five male specimens, collected June 16.

Habitat.—Sitka, Alaska.

Type.—Cat. no. 5195, U. S. National Museum.

Readily distinguished from our other two species by the coloring of the wings.

***Eutanypus borealis* Coquillett.**

Eutanypus borealis COQUILLET, The Fur-seals and Fur-seal Islands N. Pacific, iv, p. 341, 1899.

Muir Inlet, Alaska: A single specimen, collected June 12. This species was originally described from the Bering Islands, but also occurs in New Mexico and New Hampshire.

***Ceratopogon arcticus* sp. nov.**

Black, the knobs of the halteres and hairs on apical portion of antennæ of male, and entire antennæ of female, whitish; thorax polished, the abdomen opaque; femora slender, destitute of spinous bristles, first tarsal joint at least twice as long as the second, the last joint not spinose below, claws minute and of an equal size; wings hyaline, bare, the third vein on its basal fourth united to the first vein, tip of the latter nearly opposite apex of first third of the third vein, apex of third vein at about three-fourths length of wing, petiole of second posterior cell slightly shorter than the small crossvein. Length 1 mm. One male and eleven females, collected July 8 to 16.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5196, U. S. National Museum.

***Ceratopogon femoratus* Fabricius.**

Ceratopogon femoratus FABRICIUS, Systema Antliatorum, p. 45, 1805.—WINNERTZ, Linnæa Entom., p. 68, 1852.

Popof Island, Alaska: A male specimen, collected July 13. This European species has not heretofore been reported from our Continent.

***Ceratopogon hirtulus* sp. nov.**

Dull black, the legs and halteres yellow, hairs mostly light colored; mesonotum subopaque, thinly dark grayish pruinose; abdomen somewhat polished; femora slender, destitute of spinous bristles, first joint of tarsi longer than the second, fifth joint not spinose below, claws minute and of an equal size; wings grayish hyaline, bare except a few

scattered hairs in the apical portion, most numerous in the costo-apical half of the first posterior cell; third vein greatly dilated, united on at least its apical half with the first, its apex considerably beyond middle of wing, petiole of second posterior cell longer than the small cross-vein. Length 1 mm. Two females, collected June 26.

Habitat.—Virgin Bay, Prince William Sound, Alaska.

Type.—Cat. no. 5197, U. S. National Museum.

***Ceratopogon cilipes* sp. nov.**

Black, legs brown, knobs of halteres yellow, hairs mostly light colored, those on basal half of antennæ black; mesonotum polished, the abdomen less so; femora rather robust, destitute of spinous bristles, front and middle tibiæ outwardly ciliate with suberect, scale-like hairs, first two joints of hind tarsi subequal in length, the last joint not spinose below, the claws small and of an equal size; wings wholly covered with hairs, hyaline, the costal cell brownish, third vein united to the first except for a short distance beyond its middle, its apex near middle of length of wing, petiole of second posterior cell shorter than the small crossvein. Length 1.5 mm. Two female specimens, collected June 12.

Habitat.—Muir Inlet, Glacier Bay, Alaska.

Type.—Cat. no. 5198, U. S. National Museum.

Family PSYCHODIDÆ.

***Psychoda pacifica* Kincaid.**

Psychoda pacifica KINCAID, Entomological News, p. 143, 1897.

Lowe Inlet, British Columbia: Two specimens, collected June 3. Originally described from Washington, but also reported as extending from Alaska to northern California.

***Pericoma bipunctata* Kincaid.**

Pericoma bipunctata KINCAID, Entomological News, p. 34, 1899.

Berg Bay, June 10; Yakutat, Alaska, June 21: Thirteen specimens. Originally described from Washington and California. This and the preceding species were identified by Mr. Kincaid, from a comparison with the type specimens.

Family TIPULIDÆ.

***Dicranomyia venusta* Bergroth.**

Dicranomyia venusta BERGROTH, Wiener Entom. Zeitung, p. 193, 1888.

Yakutat, Alaska: A single specimen, collected June 21. This species was originally described from Alaska.

Dicranomyia halterata Osten Sacken.

Dicranomyia halterata OSTEN SACKEN, Monographs Diptera N. Am., IV, p. 71, 1869.

Muir Inlet, June 12; Popof Island, Alaska, July 10 and 16: Eight specimens. Originally described from Labrador, and Bergroth has already reported it from Alaska.

Dicranomyia infusca Doane.

Dicranomyia infusca DOANE, Journal N. Y. Ent. Soc., Sept., p. 185, 1900.

Yakutat, Alaska: A male specimen, collected June 21. Originally described from Collins, Idaho.

Limnobia sciophila Osten Sacken.

Limnobia sciophila OSTEN SACKEN, Bulletin U. S. Geol. Geog. Survey Terr., 111, p. 197, 1877.

Kadiak, July 20; Saldovia, Alaska, July 21: Three specimens. Originally described from northern California, but also occurs in Colorado.

Rhypholophus affinis Lundbeck.

Rhypholophus affinis LUNDBECK, Videnskabelige Med. Nat. For. Kjob., p. 266, 1898.

Lowe Inlet, British Columbia: A male specimen, collected June 3. Originally described from Greenland.

Rhypholophus flaveolus sp. nov.

Yellow, the upper side of occiput and posterior part of the front black, gray pruinose, the antennæ and palpi, except first joint of each, also the legs, except the coxæ, trochanters, and bases of femora, dark brown; hairs of body nearly wholly yellow; antennæ reaching slightly beyond insertion of wings, tapering to the apex, the joints beyond the second somewhat elliptical, scarcely longer than broad, the hairs less than twice as long as greatest diameter of the joints from which they spring; wings grayish hyaline, wholly covered with hairs, veins yellow, stigma scarcely apparent, discal cell opening into the second posterior, seventh vein toward its apex strongly diverging from the sixth. Length 4 mm. A male specimen, collected June 27.

Habitat.—Orca, Alaska.

Type.—Cat. no. 5200, U. S. National Museum.

Related to *holotrichus*, but of a much lighter color and with the anal cell greatly dilated at its apex.

Molophilus colonus Bergroth.

Molophilus colonus BERGROTH, Wiener Entom. Zeitung, p. 195, 1888.

Virgin Bay, Alaska: A male specimen, collected June 26. This species was originally described from Alaska.

Molophilus falcatus Bergroth.

Molophilus falcatus BERGROTH, Wiener Entom. Zeitung, p. 196, 1888.

Metlakahtla, June 4; Yakutat, Alaska, June 21: Two males and two females. Originally described from Alaska.

Molophilus paulus Bergroth.

Molophilus paulus BERGROTH, Wiener Entom. Zeitung, p. 196, 1888.

Metlakahtla, June 4; Sitka, June 16; Popof Island, July 9; Kadiak, Alaska, July 20: Two males and two females. Originally described from Alaska.

Helobia hybrida (Meigen).

Limonia hybrida MEIGEN, Klass. Besch. Eur. Zwief. Ins., p. 57, 1804.

Limnobia punctipennis MEIGEN, Sys. Besch. Eur. Zweif. Ins., I, p. 147, 1818.

Symplecta punctipennis OSTEN SACKEN, Monographs Diptera N. Amer., IV, p. 171, 1869.

Saldovia, Alaska: A female specimen, collected July 21. This European species occurs over the greater portion of the United States.

Limnophila unica Osten Sacken.

Limnophila unica OSTEN SACKEN, Monographs Diptera N. Amer., IV, p. 205, 1869.

Sitka, June 16; Yakutat, Alaska, June 21: Two male specimens. Originally described from New Hampshire.

Limnophila indistincta Doane.

Limnophila indistincta DOANE, Journal N. Y. Ent. Soc., Sept., p. 191, 1900.

Yakutat, Alaska: A male specimen, collected June 21. This species was originally described from Collins, Idaho.

Tricyphona vitripennis (Doane).

Amalopsis vitripennis DOANE, Journal N. Y. Ent. Soc., Sept., p. 195, 1900.

Lowe Inlet, British Columbia: Two male specimens, collected June 3. Originally described from Washington.

Tricyphona disphana (Doane).

Amalopsis disphana DOANE, Journal N. Y. Ent. Soc., Sept., p. 195, 1900.

Yakutat, June 10; Berg Bay, June 21; Popof Island, Alaska, July 15: Three male specimens. Also originally described from Washington.

ORNITHODES gen. nov.

Near *Tricyphona*, but the rostrum about one and a-half times as long as the head; palpi inserted near apex of the rostrum, eyes densely pubescent, head prolonged backward in the form of a rather long neck, prothorax considerably prolonged forward, antennæ sixteen-jointed, tibiæ with large spurs at their apices, tarsal claws simple, empodia narrow but rather long; apex of auxiliary vein opposite base of fourth posterior cell, auxiliary crossvein at more than twice the length of the hind crossvein before base of second vein, the latter slightly before the apex of seventh vein; second vein simple, the third issuing from it slightly before the small crossvein and forking a short distance beyond the latter; five posterior cells, the second petiolate.

Type.—The following species:

Ornithodes harrimani sp. nov.

Black, the halteres, posterior margins of the abdominal segments except the first, apices of coxæ, trochanters, and bases of femora yellow; antennæ nearly reaching insertion of wings, slightly tapering to the apex, bearing a few short bristly hairs, first joint about twice as long as broad, the remaining joints except the last one about as long as broad or only slightly longer; head and thorax opaque, gray pruinose, mesonotum marked with four black vittæ; abdomen slightly polished, its sparse hairs yellowish, claspers transverse oval, one and a-half times as broad as long, destitute of processes, posterior ventral margin of the preceding segment prolonged in the middle in the form of two large tubercles; wings hyaline, veins brownish, stigma pale grayish, a brown cloud at base of second vein, at apex of auxiliary vein, on marginal crossvein, on veins at bases of both submarginal, first, third, fourth, and fifth posterior cells, and beyond middle of second submarginal cell; base of first posterior cell directly above base of discal, hind crossvein about half its length before base of discal cell and more than its length before base of fourth posterior cell, discal cell closed. Length, including the rostrum, 15 mm. A male specimen, collected June 22.

Habitat.—Virgin Bay, Prince William Sound, Alaska.

Type.—Cat. no. 5203, U. S. National Museum.

Respectfully dedicated to Mr. Edward H. Harriman, to whose generosity we are indebted for the discovery of this and many other interesting forms of insect life.

***Pedicia obtusa* Osten Sacken.**

Pedicia obtusa OSTEN SACKEN, Bulletin U. S. Geol. Geog. Survey Terr., III, p. 205, 1877.—ALDRICH, Psyche, p. 202, 1895.

Kadiak, Alaska: A male specimen, collected July 20. Originally described from northern California, and Prof. C. Aldrich has reported its occurrence in northern Washington.

***Dicranota argentea* Doane.**

Dicranota argentea DOANE, Journal N. Y. Ent. Soc., Sept., p. 196, 1900.

Berg Bay, Alaska: A male specimen, collected June 10. The type locality of this species is Seattle, Wash.

***Rhaphidolabis debilis* Williston.**

Rhaphidolabis debilis WILLISTON, Kansas Univ. Quart., p. 62, 1893.

Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Saldovia, Alaska, July 21: Eight specimens. Originally described from California.

***Cylindrotoma juncta* sp. nov.**

Head yellow, the middle of the front and the occiput, except next the eyes, dark brown, somewhat polished, upper side of rostrum, the palpi and antennæ also brown; antennæ reaching middle of third abdominal segment, the first two joints broader than long, the others cylindrical, each, except the last one, almost four times as long as broad; thorax yellowish, mesonotum marked with three opaque black vittæ and with a narrow, curved, polished, brown stripe passing in front of them and extending below each of the outer ones, finally uniting with them at their apices; prothorax, except its hind margin, brown, a brown spot near center of pleura, a second below it between the front and middle coxæ, and a brown vitta in front of the halteres; scutellum and lower median part of metanotum brown; abdomen brown, slightly polished, claspers yellow at their apices, destitute of processes, the median yellow, polished projection three-pronged; legs yellow, bases of coxæ and apices of tarsi black; halteres yellow, the knobs brown; wings hyaline, costal cell pale gray, stigma brownish gray, base of submarginal cell far beyond base of discal, five posterior cells, base of the second slightly before base of third. Length 10 mm. A male specimen, collected June 26.

Habitat.—Virgin Bay, Prince William Sound, Alaska.

Type.—Cat. no. 5204, U. S. National Museum.

Closely related to *distinctissima* Meigen, of Europe, but the coloring is different and the male claspers are unarmed.

Tipula septentrionalis Loew.

Tipula septentrionalis LOEW, Berliner Ent. Zeitsch., p. 278, 1863.

Virgin Bay, June 26; Kukak Bay, July 4; Popof Island, July 10; Kadiak, Alaska, July 20: Two males and three females; one of the females from Popof Island has aborted wings which are shorter than the thorax. Originally described from Labrador; the U. S. National Museum contains a male specimen, collected on Mount Washington, New Hampshire, by Mrs. Annie T. Slosson.

Tipula macrolabis Loew.

Tipula macrolabis LOEW, Berliner Ent. Zeitsch., p. 58, 1864.

Saldovia, Alaska: A male specimen, collected July 21. This species was originally described from the region about Hudson Bay, British America, and a male specimen collected in the White Mountains, New Hampshire, is contained in the collection of the U. S. National Museum.

Tipula fallax Loew.

Tipula fallax LOEW, Berliner Ent. Zeitsch., p. 281, 1863.

Sitka, June 16; Virgin Bay, June 21; Kukak Bay, July 1 and 4; Kadiak, Alaska, July 20: Two males and six females. Originally described from California.

Tipula appendiculata Loew.

Tipula appendiculata LOEW, Berliner Ent. Zeitsch., p. 287, 1863.

Popof Island, July 10; Kadiak, July 20; Juneau, Alaska, July 25: Nine males and seven females. Originally described from the Saskatchewan River, British America.

Tipula besselsi Osten Sacken.

Tipula besselsi OSTEN SACKEN, Proc. Boston Soc. Nat. Hist., p. 42, 1876.

Muir Inlet, Alaska: Three males and one female, collected June 12. The type locality of this species is Grinnel Land, British America, latitude 82° north.

Tipula strigata sp. nov.

Front and occiput black, gray pruinose, marked with a median black vitta; rostrum varying from brown to yellow, palpi brown, antennæ black, the first two joints and base of the third, yellow; antennæ of male, if stretched backward, would reach base of third abdominal segment, slightly tapering toward the apex, third joint the longest, slightly thickening at its apex, bearing several irregularly arranged bristles on its basal two-thirds; remaining joints becoming

successively slightly shorter, each slightly constricted near the middle, bearing a whorl of bristles near the base, the seventh joint over three times as long as wide; antennæ of female almost reaching base of wing, considerably tapering to the apex, formed as in the male except that the joints beyond the fifth are not constricted in the middle, the seventh joint less than twice as long as wide; thorax bare, black, opaque, gray pruinose, a yellow vitta extending from below each humerus to root of wing and from thence to the scutellum, sending a branch downward behind the front coxa; the three usual vittæ are concolorous with the mesonotum, each margined with black, the two black lines bordering the median vitta straight, anteriorly diverging, their anterior ends widely separated, a brown vitta midway between them, which is sometimes almost obsolete; scutellum brown, gray pruinose, its margin and lower side yellow; metanotum black, gray pruinose, the sides spotted with yellow; abdomen bare, yellow, a black vitta on each side of the middle; male hypopygium large, black, the apex and under side yellow, ventral portion of the preceding (eighth) abdominal segment bearing sparse, short, black hairs; claspers almost square, each bearing near the apex of the inner side a pair of spatulate organs which are about as long as the clasper, the upper pair converging, the lower one curving outward; dorsal piece of hypopygium at middle of its posterior margin bearing a pair of conical, blunt-pointed, backwardly projecting processes which are more than one-half as long as the dorsal piece; ovipositor black at its base, the remainder yellow, nearly as long as the second abdominal segment, the upper pair of sheaths tapering to their middle, then of nearly an equal width, not crenulate, the apex bluntly rounded; wings pale grayish, costal cell yellowish, auxiliary vein yellow, the others brown, stigma brown, a white spot before its base, a less distinct one beyond its apex and a similar one in base of discal cell, this cell more than twice as long as wide; legs yellow, apices of femora and of tibiæ black, tarsi changing into black at its apex; halteres brown, the bases yellow. Length of male, 14 mm.; of female, 18 mm. Two males and one female.

Habitat.—Metlakahtla, June 4; Sitka, June 16; Yakutat, Alaska, June 21.

Type.—Cat. no. 5205, U. S. National Museum.

***Tipula tenebrosa* sp. nov.**

Same as the above description of *strigata* with these exceptions: Front and occiput destitute of a median black vitta, rostrum brown, the under side yellow, third joint of antennæ wholly black, antennæ of male not reaching beyond base of abdomen, the third joint bearing a

16140

few scattered bristles, seventh antennal joint of female nearly three times as long as broad; thorax bearing many rather short whitish hairs on its dorsum, scutellum wholly black, yellow spots on sides of metanotum small or wanting; abdomen thinly covered with short, pale yellowish hairs, black, the venter, at least basally, and sometimes the hind margins of some of the segments, yellow; ventral portion of eighth abdominal segment bearing many pale yellowish hairs, claspers nearly twice as long as wide, the lower outer angle considerably prolonged beyond the upper one, each clasper bearing near the apex of the inner side a pair of flattened processes, the anterior one nearly oval, the other subconical, its apex furnished with a brown, corneous tooth; upper pair of sheaths of ovipositor tapering for three-fourths of their length; discal cell less than twice as long as wide; femora and tibiae of female yellow, in the male brown with bases of femora yellow. Length of male, 12 mm.; of female, 15 mm. A specimen of each sex.

Habitat.—Berg Bay, June 10; Muir Inlet, Alaska, June 11.

Type.—Cat. no. 5206, U. S. National Museum.

***Tipula gelida* sp. nov.**

Differs from the description of the male of *strigata* only as follows: Front and occiput destitute of a median black vitta, rostrum black, third joint of antennae wholly black, antennae not reaching base of abdomen, the third joint slightly more than twice as long as wide; the three mesonotal vittae are black, the median one divided in the middle by a gray line; scutellum and metanotum not marked with yellow; abdomen black, opaque, gray pruinose, the hind margins of the segments, except the first, and a lateral vitta, yellow, sparsely covered with very short yellowish hairs; hypopygium small, black, gray pruinose, ventral portion of eighth abdominal segment sparsely yellowish pubescent, claspers nearly orbicular, each bearing near the apex of the inner side an oval, inwardly curving process which is nearly as long as the clasper; dorsal piece of the hypopygium destitute of processes on its hind margin; whitish spots of wings indistinct, discal cell less than twice as long as broad. Length 14 mm. Six male specimens captured June 4.

Habitat.—Metlakatla, Alaska.

Type.—Cat. no. 5207, U. S. National Museum.

***Tipula cineracea* sp. nov.**

Equals the description of *strigata* with these exceptions: Antennal joints four to eleven in the male strongly constricted in the

middle, the seventh about two and one-half times as long as its greatest width; antennæ of female reaching middle of metanotum, slightly tapering to the apex; of the usual three mesonotal vittæ, the outer ones are wholly wanting, the median one is gray, bordered with a pair of black lines and with a third black line midway between them; abdomen sparsely covered with very short yellowish hairs, yellow, marked with a median black vitta which is usually almost obsolete on base of abdomen and in the male is broadly expanded posteriorly, male hypopygium rather small, yellow, ventral portion of the eighth abdominal segment bearing a few short, yellowish hairs; claspers transversely oval, the upper of the two processes near apex of inner side of each is somewhat clavate, slightly longer than the clasper, the other is about twice as long as this one and about four times as broad, with two large grooves on the outer side toward its apex strongly curving upward, the apex dark brown and terminating in a flattened, rather narrow process in front of the base of which is a large brown lobe; dorsal piece of hypopygium destitute of processes; ovipositor yellow, noticeably longer than the second abdominal segment; white spots of wings indistinct, discal cell only slightly longer than broad. Length of male, 11 to 13 mm.; of female, 15 to 19 mm. Seventeen males and six females.

Habitat.—Yakutat, June 21; Kukak Bay, Alaska Peninsula, July 4; Popof Island, July 10; Kadiak, Alaska, July 20.

Type.—Cat. no. 5208, U. S. National Museum.

The U. S. National Museum contains a female specimen of this species collected at Fort Wrangell, Alaska, by Professor H. F. Wickham.

***Tipula spernax* Osten Sacken.**

Tipula spernax OSTEN SACKEN, Bulletin U. S. Geol. Geog. Survey Terr., III, p. 210, 1877.

Metlakahtla, Alaska: A male specimen, collected June 4. This species was originally described from the mountains of California.

***Pachyrrhina vittula* Loew.**

Pachyrrhina vittula LOEW, Berliner Ent. Zeitsch., p. 63, 1864.

Muir Inlet, Alaska: Two male specimens, collected June 12. The original habitat is the vicinity of Hudson Bay, British America.

Family XYLOPHAGIDÆ.***Leptis dimidiata* Loew.**

Leptis dimidiata LOEW, Berliner Ent. Zeitsch., p. 10, 1863.

Juneau, Alaska: Three specimens, collected July 26. This species was originally described from Alaska.

***Leptis pruinosa* Bigot.**

Leptis pruinosa BIGOT, Bulletin Soc. Zool. France, p. 19, 1887.

Popof Island, Alaska: Two specimens, collected July 10. Originally reported from Mount Hood, Oregon.

***Symphoromyia pullata* Coquillett.**

Symphoromyia pullata COQUILLETT, Journal New York Ent. Soc., p. 56, 1894.

Sitka, Alaska: A male specimen, captured June 11. This species was originally described from Colorado and New Hampshire.

***Spania edeta* Walker.**

Spania edeta WALKER, List Dipt. Ins. Brit. Museum, III, p. 489, 1849.

Muir Inlet, June 12; Sitka, Alaska, June 16: Four specimens. Originally described from the Albany River, British America. Specimens are in the U. S. National Museum from the White Mountains, New Hampshire.

Family STRATIOMYIIDÆ.***Beris annulifera* (Bigot).**

Oplacantha annulifera BIGOT, Annales Soc. Ent. France, p. 21, 1887.

Sitka, June 16; Kukak Bay, July 4; Popof Island, Alaska, July 12: Four specimens. The type locality of this species is stated to be Georgia, but this may be erroneous. Specimens are in the U. S. National Museum from New Hampshire and Colorado.

Family TABANIDÆ.***Chrysops nigripes* Zetterstedt.**

Chrysops nigripes ZETTERSTEDT, Insecta Lapponica Descripta, p. 519, 1840.

Kukak Bay, Alaska: A female specimen, collected July 4. Originally described from Lapland, but Dr. Loew has also reported its occurrence in Alaska.

***Tabanus septentrionalis* Loew.**

Tabanus septentrionalis LOEW, Verh. Zool.-Bot. Gesell. Wien, p. 593, 1858.

Kukak Bay, July 4; Kadiak, Alaska, July 20: Seven specimens.

This species was originally described from Labrador, and Osten Sacken has already reported its occurrence in Alaska.

Tabanus sonomensis Osten Sacken.

Tabanus sonomensis OSTEN SACKEN, Bulletin U. S. Geol. Geog. Survey Terr., III, p. 216, 1877.

Fox Point, Alaska: Three specimens, captured July 28. Originally described from northern California.

Tabanus insuetus Osten Sacken.

Tabanus insuetus OSTEN SACKEN, Bulletin U. S. Geol. Geog. Survey Terr., III, p. 219, 1877.

Virgin Bay, June 26; Juneau, July 26; Fox Point, Alaska, July 28: Three specimens. Also originally described from northern California.

Family THEREVIDÆ.

Thereva melanoneura Loew.

Thereva melanoneura LOEW, Berliner Ent. Zeitsch., p. 250, 1872.

Kukak Bay, Alaska: Ten specimens, taken July 4. Originally described from California.

Family EMPIDIDÆ.

Empis poplitea Loew.

Empis poplitea LOEW, Berliner Ent. Zeitsch., p. 16, 1863.

Sitka, June 16; Yakutat, June 21; Kukak Bay, July 4; Kadiak, Alaska, July 20: Thirty-three specimens. Originally described from Alaska. Specimens are in the U. S. National Museum from Colorado.

Empis clauda sp. nov.

Black, the palpi, proboscis, humeri, lateral margins of metanotum, scutellum, a large spot below insertion of each wing, the halteres, coxæ, and remainder of legs, also base of venter, yellow, apices of tarsi brown; eyes of male separated less than width of lowest ocellus, third joint of antennæ broad at base, tapering rapidly to the apex, about twice as long as the style, proboscis slightly over twice as long as height of head; hairs and bristles of body and legs black; mesonotum opaque, gray pruinose, marked with four, indistinct, brownish vittæ; scutellum bearing four bristles; abdomen slightly polished, hypopygium small, ascending obliquely, the dorsal piece prolonged at each posterior corner in the form of a flattened, almost linear process, central filament unusually robust, arcuate, free except toward its apex; no ventral process in front of the hypopygium; hind femora of male

each bearing a hook-like process on the under side a short distance before the apex, curved backward and covered with short hairs, while beyond it are two, bare, pimple-like swellings; on the inner side of the femora nearer its apex is a fringe of about five rather short spinous bristles; hind tibiae of male each bearing a bare, slightly arcuate process on the outer side near the base, while opposite it, on the inner side, is a low prominence beset with short bristly hairs; legs of female simple, not fringed with scales; wings grayish hyaline, stigma brown, veins brown, normal. Length 5 to 7 mm. Seventeen males and fourteen females.

Habitat.—Yakutat, June 21; Popof Island, July 8 to 12; Kadiak, Alaska, July 20.

Type.—Cat. no. 5209, U. S. National Museum.

***Empis laniventris* Eschscholz.**

Empis laniventris ESCHSCHOLZ, Entomographien, I, p. 113, 1823.

Popof Island, Alaska: Seventy-eight specimens, collected from July 10 to 15. Originally described from Alaska.

***Empis virgata* Coquillett**

Empis virgata COQUILLET, Proc. U. S. National Museum, p. 408, 1896.

Sitka, June 16; Yakutat, June 21; Salliovia, Alaska, July 21: Seventy specimens. This species was heretofore known only from Washington.

***Empis pellucida* sp. nov.**

Black, the palpi and horny part of proboscis, except its base, yellow, halteres yellowish white, bases of tibiae sometimes reddish yellow; eyes of male more widely separated than the posterior ocelli; third joint of antennae rather broad, gradually tapering to the apex, about five times as long as the style, proboscis twice as long as height of head; hairs and bristles of body and legs black; mesonotum slightly polished, marked with a median, light gray pruinose vitta, the lateral margins and pleura gray pruinose; scutellum bearing four bristles; abdomen highly polished, hypopygium of male small, almost bare, obliquely ascending, destitute of elongate processes, central filament robust, rapidly tapering toward the apex, arcuate, free except its apex; hind margin of fifth abdominal segment ventrally fringed with spinous bristles, many of which are as long as this segment; legs in both sexes simple, first joint of hind tarsi slightly thicker than that of the front ones, hind femora spinose on the under side; wings hyaline, veins dark brown, normal, stigma brown. Length 6 mm. Three males and two females.

Habitat.—Virgin Bay, Prince William Sound, June 26; Kukak Bay, July 4; Popof Island, Alaska, July 9 and 11.

Type.—Cat. no. 5210, U. S. National Museum.

Closely related to *virgata*, but in that species the spinous bristles on the ventral portion of the fifth abdominal segment in the male are arranged in a round cluster and none of them exceed one-fourth of the length of this segment; both sexes have the mesonotum dark gray pruinose and marked with three distinct, polished black vittæ.

***Empis fumida* sp. nov.**

Differs from the above description of *pellucida* only as follows: Palpi and proboscis black, legs always wholly black, eyes of male less widely separated than width of lowest ocellus, mesonotum highly polished, not distinctly vittate, scutellum bearing six or more bristles, hypopygium of male quite thickly covered with hairs, the central filament hidden except sometimes its apical portion, wings pale brown, more yellowish at base and in costal cell. Length 7 mm. Six males and four females.

Habitat.—Metlakahla, in June; Virgin Bay, June 26; Kukak Bay, Alaska, July 4.

Type.—Cat. no. 5211, U. S. National Museum.

***Empis infumata* sp. nov.**

Same as *fumida* except that the palpi and horny portion of the proboscis are yellow, central filament of hypopygium of male free except at the apex, no fringe nor cluster of spinous bristles on ventral portion of the fifth or other abdominal segments, hind femora destitute of spinous bristles on the under side, at most with a few weak bristles on the apical fourth. Length 5 mm. One male and three females, collected July 8 to 11.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5212, U. S. National Museum.

***Empis brachysoma* sp. nov.**

Black, the palpi, horny portion of proboscis, stems of halteres, femora, and tibiæ yellow, front and hind femora in both sexes, and hind tibiæ in the male, yellowish brown, coxæ brown basally, changing into yellow at their apices, tarsi and knobs of halteres dark brown, apex of male abdomen marked with yellow; eyes of male contiguous, third joint of antennæ rather broad at base, quite rapidly tapering to the apex, about twice as long as the style, proboscis twice as long as height of head; hairs and bristles of mesonotum black, hairs of pleura and abdomen

white; thorax opaque, gray pruinose, mesonotum marked with four, slightly polished, black vittæ, scutellum bearing from four to six black bristles; abdomen of male polished black in middle of dorsum, the sides opaque, gray pruinose; in the female the dorsum of segments two to four, and all of abdomen beyond the fifth segment is polished black, remainder of abdomen opaque, gray pruinose; hypopygium of male rather small, obliquely ascending, claspers destitute of processes, dorsal piece with a broad emargination in its posterior end almost reaching its center, central filament hidden, venter destitute of processes and of spinous bristles; legs of male simple, femora destitute of bristles and long hairs, first joint of hind tarsi noticeably thicker than that of the front ones; legs of female ciliate with nearly erect scales on both sides of the hind femora and tibiæ, middle femora and apical half of upper side of the front femora; wings unusually long and narrow, grayish hyaline, stigma and veins, except at base of wing, dark brown, venation normal. Length 7 mm. A specimen of each sex, collected July 21.

Habitat.—Saldovia, Kenai Peninsula, Alaska.

Type.—Cat. no. 5213, U. S. National Museum.

***Empis triangula* sp. nov.**

Black, the halteres and legs dark brown, knees yellow, this color rarely extending over the greater portion of the femora and sometimes of the tibiæ, venter of abdomen of female largely yellow; eyes of male contiguous, third joint of antennæ nearly linear, at least five times as long as broad, the style scarcely perceptible; proboscis from one and a-half to twice as long as height of head; hairs and bristles of thorax and scutellum black; thorax somewhat polished, very thinly gray pruinose, not distinctly vittate, scutellum bearing ten marginal bristles; abdomen slightly polished, hypopygium of male rather large, obliquely ascending, the lower piece bearing a cluster of rather long, black bristles at its apex, filament hidden, venter of abdomen destitute of processes and of spinous bristles; legs simple, slender, almost bare; wings hyaline, veins and stigma brown, second submarginal cell somewhat triangular, pointed at its base, about one and one-half times as long as broad, discal cell subequal in length to last section of fourth vein, last section of fifth vein half as long as the preceding section. Length 2 to 3.5 mm. Eight males and eighteen females.

Habitat.—Lowe Inlet, British Columbia, June 3; Farragut Bay, June 8; Sitka, June 16; Yakutat, Alaska, June 21.

Type.—Cat. no. 5214, U. S. National Museum.

***Empis conjuncta* sp. nov.**

Differs from the above description of *triangula* only as follows: Legs and venter of abdomen dark brown, proboscis shorter than height of head, hypopygium of male wholly and sparsely covered with bristly hairs, destitute of a cluster of these hairs, the dorsal piece bearing a pair of long, subcylindrical, fleshy processes, which are covered with short hairs, filament free. Length 2.5 mm. One male and two females.

Habitat.—Sitka, June 16; Orca, Alaska, June 27.

Type.—Cat. no. 5215, U. S. National Museum.

Classified by its short proboscis, this species would be placed in the genus *Hilara*; but its elongated third antennal joint with the minute style, the contiguous eyes of the male and the slender first joint of his front tarsi, indicate a nearer relationship with the typical species of the genus *Empis*.

***Hilara aurata* sp. nov.**

Black, the first two antennal joints and the legs dark brown, the knees and halteres yellow; upper part of occiput and sides of front velvet black, middle of front below the lowest ocellus, face, cheeks, and lower part of occiput gray pruinose; eyes of male almost as widely separated as the posterior ocelli, third joint of antennæ conical, slightly longer than broad, subequal in length to the style, proboscis as long as height of head, hairs of palpi and under side of head whitish, those of occiput yellowish brown; thorax slightly polished, marked with three indistinct black vittæ, almost bare, in the middle, behind the suture, with a golden yellow pubescence, no hairs in front of the halteres, scutellum bearing four bristles and a few short hairs; abdomen slightly polished, its hairs yellow, hypopygium of male small, nearly bare; legs destitute of long bristly hairs, first joint of front tarsi of male greatly swollen; wings hyaline, veins yellow, stigma pale yellowish, venation normal. Length 4 mm. A female specimen, collected July 4. The U. S. National Museum contains a male specimen collected at Eastport, Maine, July 1, 1870, by Mr. Edward Burgess.

Habitat.—Kukak Bay, Alaska; Eastport, Maine.

Type.—Cat. no. 5216, U. S. National Museum.

***Hilara transfuga* Walker.**

Hilara transfuga WALKER, List Dipt. Ins. Brit. Museum, III, p. 491, 1849.

Berg Bay, June 10; Popof Island, Alaska, July 6 to 10: Ten specimens. Originally described from Albany River, British America.

***Hilara quadrivittata* Meigen.**

Hilara quadrivittata MEIGEN, Syst. Besch. Eur. Zweif. Ins., III, p. 7, 1822.—SCHINER, Fauna Austriaca, Diptera, I, p. 115.

Kukak Bay, July 4; Popof Island, July 8 to 10; Kadiak, Alaska, July 20: Twenty-eight specimens. This European species has not heretofore been reported from this Continent. The specimens agree perfectly with the descriptions above indicated.

***Gloma obscura* Loew.**

Gloma obscura LOEW, Berliner Ent. Zeitsch., p. 84, 1864.

Yakutat, June 21; Virgin Bay, Alaska, June 26: Two specimens. Originally described from the White Mountains, New Hampshire.

***Gloma scopifera* sp. nov.**

Black, a humeral dot, the halteres, second and third segments of abdomen, except middle of dorsum, under side of the fourth segment and the legs, yellow, the greater portion of the coxæ, middle of femora, apices of tibiæ, last two joints of front and middle tarsi, and whole of hind tarsi, except bases of first two joints, brown; all hairs and bristles black; third joint of antennæ slightly longer than wide, less than half as long as the style; thorax somewhat opaque, thinly gray pruinose; abdomen slightly polished; front tibiæ at apices bearing a dense cluster of rather long bristly hairs, last two joints of front tarsi greatly dilated and fringed along the sides with short bristly hairs, middle femora beyond the middle of the under side bearing a cluster of about three long bristles, middle tibiæ swollen at middle of inner side, the swelling densely covered with short, bristly hairs; wings grayish hyaline, veins and stigma brown. Length 6 mm. Three male specimens, collected June 16.

Habitat.—Sitka, Alaska.

Type.—Cat. no. 5217, U. S. National Museum.

***Cyrtoma pilipes* Loew.**

Cyrtoma pilipes LOEW, Berliner Ent. Zeitsch., p. 207, 1862.

Kukak Bay, July 4; Popof Island, Alaska, July 8 to 13: Twenty-five specimens. Originally described from Illinois.

***Microphorus atratus* sp. nov.**

Black, including the hairs; eyes of male contiguous, third joint of antennæ orbicular on its basal half, the remainder narrowed into a styliform process, style one and one-half times as long as the third antennal joint, proboscis less than half as long as height of head, body opaque, not pruinose, the hairs rather long, on the mesonotum abun-

dant, on the abdomen sparse, scutellum bearing four bristles; under side of front and middle femora, both sides of the hind ones and outer side of the hind tibiæ ciliate their entire length with rather long hairs, first joint of hind tarsi noticeably thicker than that of either of the other tarsi, much narrower than the hind tibiæ; wings hyaline, veins and stigma brown, venation normal, last section of fifth vein two-thirds as long as the preceding section, sixth vein obsolete beyond end of anal cell. Length 2 mm. A male specimen, collected July 20.

Habitat.—Kadiak, Alaska.

Type.—Cat. no. 5218, U. S. National Museum.

***Microphorus flavipilosus* sp. nov.**

Black, the hairs, stems of halteres, femora and tibiæ, yellow, knobs of halteres and the tarsi brown; eyes of male contiguous, third joint of antennæ sub lanceolate, only slightly tapering to the apex, over four times as long as the style, proboscis noticeably shorter than height of head, mesonotum highly polished, scutellum bearing about ten marginal bristles, abdomen slightly polished, hairs of legs sparse and rather short, first joint of hind tarsi slightly thicker than that of any of the other tarsi; wings hyaline, stigma smoky brown, veins yellowish brown, last section of fifth vein one-fourth as long as the preceding section, sixth vein reaching almost to the wing margin; length 2 mm. Two male specimens, collected June 3.

Habitat.—Lowe Inlet, British Columbia.

Type.—Cat. no. 5219, U. S. National Museum.

***Microphorus crocatus* sp. nov.**

Yellow, the head and its members, a median vitta on mesonotum, dorsum of abdomen, and apices of tarsi dark brown, third joint of antennæ sub lanceolate, only slightly tapering to the apex, about twice as long as wide, five times as long as the style; proboscis about as long as height of head; hairs of body sparse and rather short, yellow; mesonotum polished, scutellum bearing about eight bristles, abdomen polished; hairs of legs very short, first joint of hind tarsi slightly thicker than that of any of the other tarsi; wings hyaline, veins yellowish brown, stigma almost obsolete, last section of fifth vein nearly half as long as the preceding section, sixth vein ending a short distance from the wing margin. Length 2 mm. A female specimen, collected June 26.

Habitat.—Sitka, Alaska.

Type.—Cat. no. 5220, U. S. National Museum.

Rhamphomyia flavirostris Walker.

Rhamphomyia flavirostris WALKER, List Dipt. Ins. Brit. Mus., III, p. 501, 1849.

Muir Inlet, June 12; Popof Island, Alaska, July 10 and 12: Three specimens. Originally described from Albany River, British America.

Rhamphomyia corvina Loew.

Rhamphomyia corvina LOEW, Berliner Ent. Zeitsch., p. 28, 1861.

Lowe Inlet, British Columbia, June 3; Kukak Bay, July 4; Juneau, Alaska, July 26: Three specimens. Originally described from New York. The U. S. National Museum contains specimens collected in Pennsylvania, District of Columbia, and North Carolina.

Rhamphomyia minytus Walker.

Rhamphomyia minytus WALKER, List Dipt. Ins. Brit. Mus., III, p. 502, 1849.

Berg Bay, June 10; Muir Inlet, June 11; Virgin Bay, Alaska, June 26: Six specimens. Originally described from Albany River, British America.

Rhamphomyia irregularis Loew.

Rhamphomyia irregularis LOEW, Berliner Ent. Zeitsch., p. 81, 1864.

Kukak Bay, Alaska: A female specimen, taken July 4. Originally described from New Hampshire. The U. S. National Museum also contains specimens of both sexes collected in Colorado.

Rhamphomyia limbata Loew.

Rhamphomyia limbata LOEW, Berliner Ent. Zeitsch., p. 32, 1861.

Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Saldovia, Alaska, July 21: Eight female specimens. Originally reported from the District of Columbia. Specimens are contained in the U. S. National Museum collection from Illinois and Colorado.

Rhamphomyia villipes sp. nov.

Black, the halteres, hypopygium, femora, tibiae and tarsi yellow, apices of first four tarsal joints, and whole of the fifth, brown, coxae brown and yellow; eyes of male contiguous, third joint of antennae about four times as long as wide, two and one-half times as long as the style, proboscis twice as long as height of head; hairs of entire insect black; thorax opaque, gray pruinose, two indistinct brown subdorsal vittae, hairs abundant and rather long, scutellum bearing four bristles; abdomen opaque, densely whitish pruinose, thickly clothed with rather

long hairs, hypopygium rather small, ascending, the claspers subhemispherical, thinly covered on the outer surface with rather long hairs, on the posterior portion bearing an oval, hairy process, near the middle of the inner side with a short, black, subcylindrical, hairy process, and at the apex bearing a long hairy process nearly as long as the clasper, of the shape of a half cylinder, the processes of the two claspers pressed together and having a circular opening near the apex of the upper side; filament appressed to the body of the hypopygium; front and hind sides of the front and middle tibiae and under side of the middle femora densely covered with rather long hairs, legs elsewhere more sparsely covered with similar hairs, middle femora distinctly arcuate; wings whitish hyaline, stigma pale brown, veins normal, yellow and brown, last section of fifth vein one and one-half times as long as the preceding section, sixth vein reaches the wing margin but is colorless from apex of anal cell two-thirds of distance to the wing margin. Length 10 mm. A male specimen, collected July 9.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5221, U. S. National Museum.

Closely related to *quinquelincata*, but readily distinguished by the unusually hairy legs and processes on the hypopygium.

***Rhamphomyia disparilis* sp. nov.**

Male: Black, the halteres yellowish; hairs of upper part of head, antennae, mesonotum, scutellum, several on the tibiae and many on the tarsi, black, remaining hairs yellowish; eyes separated more widely than the posterior ocelli, third joint of antennae slightly over twice as long as wide, three times as long as the style, proboscis slightly longer than height of head; mesonotum slightly polished, not distinctly vittate, its hairs short and sparse, scutellum bearing four bristles; abdomen polished, its hairs long and sparse, hypopygium very large, porrect, lower outer angle of each clasper prolonged into a narrow, subconical process about as long as the basal portion, hypopygium bearing many very long bristly hairs, filament thread-like, the exposed portion fully seven times as long as the first joint of the hind tarsi, the latter and the second joint bearing many long hairs on their upper side, first joint of front tarsi as thick as the tibiae, much thicker than that of any of the other tarsi, middle tibiae on the outer side ciliate with a row of long bristly hairs; wings hyaline, veins and stigma brown, venation normal, last section of fifth vein nearly twice as long as the preceding section, sixth vein obliterated before reaching the wing margin. Length 3 to 4.5 mm.

Female: Differs from the male as follows: Anterior half of mesonotum opaque, gray pruinose, marked with four polished black vittæ, the remainder of thorax, scutellum, and first five segments of abdomen, densely silvery white pruinose, hairs of abdomen rather short, hind tarsi and middle tibiæ destitute of long, bristly hairs, first joint of front tarsi narrower than the tibiæ, not so thick as that of the hind tarsi; discal cell prolonged almost to the wing margin, fourth vein not prolonged beyond its apex, no vein between second and third posterior cells, last section of fifth vein about one-sixth as long as the preceding section. Length 4 to 5 mm.

Five males and six females.

Habitat.—Yakutat, June 21; Virgin Bay, Alaska, June 26.

Type.—Cat. no. 5222, U. S. National Museum.

Closely related to *limbata* and *irregularis*, but in those species the lower outer angle of the male claspers is rounded, and the fourth vein in both sexes is prolonged to the wing margin.

***Rhamphomyia glauca* sp. nov.**

Black, the halteres light yellow, hairs and bristles black; eyes of male contiguous, third joint of antennæ slightly over twice as long as wide, about four times as long as the style, proboscis about as long as height of head; body opaque, bluish gray pruinose, hairs sparse and rather short, scutellum bearing four bristles, hypopygium rather small, obliquely ascending, bearing several long bristly hairs, claspers elongate conical, filament thread-like, the exposed portion about five times as long as first joint of hind tarsi, the latter much thicker than that of any of the other tarsi, much narrower than the tibiæ, hind tibiæ of male outwardly bearing several rather long bristly hairs, in the female ciliate with nearly erect scales, wings hyaline, stigma pale yellowish, veins yellowish brown, normal, last section of fifth vein over twice as long as the preceding section, sixth vein reaches the wing margin. Length 3 to 4 mm. A specimen of each sex.

Habitat.—Metlakahtla, June 4; Berg Bay, Alaska, June 10.

Type.—Cat. no. 5223, U. S. National Museum.

Near *priapulius*, but in that species the sixth vein is obliterated before reaching the wing margin and the hind tibiæ of the female are not ciliate with scales.

***Rhamphomyia cineracea* sp. nov.**

Differs from the above description of *glauca* only as follows: Mesonotum slightly polished, thinly dark gray pruinose, hairs of male hypopygium sparse and rather short, the claspers suboval, near apex of

under side bearing a dense cluster of rather short hairs, filament quite slender, the exposed portion only slightly longer than the first joint of the hind tarsi, hind tibiæ of male outwardly bearing a few rather short bristles, in the female not ciliate with scales, last section of fifth vein sometimes less than twice as long as the preceding section. Length about 3 mm. Two males and five females.

Habitat.—Sitka, June 16; Kukak Bay, July 4; Popof Island, July 8 to 10; Juneau, Alaska, July 26.

Type.—Cat. no. 5224, U. S. National Museum.

More nearly related to *glauca* than to any of our other species.

***Rhamphomyia limata* sp. nov.**

Differs from *glauca* as follow: Mesonotum marked with four polished vittæ which sometimes almost meet each other; segments three to five of abdomen, and sides of the second, polished, the narrow hind margins of these segments whitish, hairs on sides of abdomen rather abundant and long, claspers of male hypopygium somewhat oval, at the apex bearing a dense cluster of rather long hairs, filament robust, the exposed portion less than half as long as the first joint of the hind tarsi, hind tibiæ of female not ciliate with scales, wings tinged with yellow, especially in the costal cell, stigma dark brown. Length 5 to 6 mm. One male and three females, collected June 8 and 9.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5225, U. S. National Museum.

Near *fimbriata*, but in that species the mesonotum is marked with only three polished vittæ, and the middle and hind femora of the female are ciliate on the under side with nearly erect scales.

***Rhamphomyia barypoda* sp. nov.**

Differs from *glauca* as follows: Mesonotum slightly polished, thinly olive gray pruinose and marked with three indistinct black vittæ; scutellum and abdomen polished, lower and posterior edges of male claspers thickly beset with rather long hairs, claspers nearly transversely trapezoidal, filament rather robust, sinuate, the exposed portion only slightly longer than the first joint of the hind tarsi, the latter as thick as the tibiæ, middle and hind femora and tibiæ of female ciliate both sides with nearly erect scales; wings grayish hyaline, tinged with pale yellowish at the bases, stigma dark brown, last section of fifth vein about one and one-half times as long as the preceding section. Length 4 to 5 mm. Four males and six females.

Habitat.—Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Kadiak, Alaska, July 20.

Type.—Cat. no. 5226, U. S. National Museum.

Near *flexuosa*, but in that species the mesonotum is nearly opaque, not black vittate; the legs and abdomen are dark brown, and the legs of the female are not ciliate with scales.

***Rhamphomyia albopilosa* sp. nov.**

Black, the knobs of the halteres yellow, hairs white, many of those on the mesonotum, the ten marginal ones on the scutellum, those on the antennæ, palpi, upper part of occiput, vertex, tibiæ, and tarsi, black; hairs on mesonotum and sides of abdomen abundant and rather long; eyes of male contiguous, third joint of antennæ two and one-half times as long as broad, slightly over twice as long as the style; proboscis slightly longer than height of head; mesonotum slightly polished, the sides, front end and pleura opaque, gray pruinose; scutellum and abdomen polished, venter opaque, gray pruinose, hind margin of sixth ventral segment densely fringed with rather short yellowish bristles, the following ventral segment bearing a pair of blunt-pointed, elongate, conical processes; hypopygium small, ascending, thinly pilose, claspers somewhat elongate oval, pointed at the apex, filament robust, usually free, the exposed portion somewhat shorter than the first joint of the hind tarsi, the latter thicker than that of any of the other tarsi, as thick as the tibiæ, the first joint of the front and hind tarsi bearing many long hairs on the upper side; wings hyaline, veins and stigma dark brown, last section of fifth vein over twice as long as the preceding section, sixth vein prolonged to the wing margin. Length 5 mm. Two males, collected June 10.

Habitat.—Berg Bay, Alaska.

Type.—Cat. no. 5227, U. S. National Museum.

Near *gilvipilosa*, but in that species the mesonotum is opaque, the abdomen nearly so, the scutellum bears only two bristles, and the venter of the abdomen is destitute of a fringe and pair of subconical processes.

***Rhamphomyia adversa* sp. nov.**

Black, the halteres and bases of femora yellow, hairs and bristles black; third joint of antennæ four times as long as broad, about five times as long as the style, proboscis slightly longer than height of head; thorax opaque, gray pruinose, mesonotum marked with three black vittæ, scutellum bearing six bristles, abdomen slightly polished, almost bare, legs slender, nearly bare, first joint of hind tarsi much thicker than that of any of the other tarsi; wings very broad, black, the base about to apex of basal cells hyaline, venation normal, last section of fifth vein almost twice as long as the preceding section,

sixth vein prolonged to the wing margin. Length 3 mm. Ten female specimens.

Habitat.—Sitka, June 16; Yakutat, June 21; Orca, Alaska, June 27.

Type.—Cat. no. 5228, U. S. National Museum.

Closely related to *angustipennis*, but in that species the third joint of the antennæ is only about twice as long as wide and twice as long as the style, and the median vitta on the mesonotum is light gray, instead of black.

***Rhamphomyia cinefacta* sp. nov.**

Black, including the hairs; eyes of male contiguous, third joint of antennæ about three times as long as wide, four times as long as the style, proboscis about twice as long as height of head; body opaque, gray pruinose, mesonotum not black vittate, its hairs and those of abdomen of female short and sparse, on abdomen of male abundant and rather long, scutellum bearing from four to six bristles, hypopygium rather small, ascending, claspers suboval, apex of dorsal piece bearing three or four very short spinous processes, filament rather robust toward the base, gradually tapering to the apex, the exposed portion slightly shorter than the first joint of the hind tarsi, the latter noticeably thicker than that of any of the other tarsi; hind tibiæ of male bearing several rather long hairs on the outer and inner sides; wings of male hyaline, stigma and veins dark brown, in the female wholly pale brown, stigma slightly darker, in both sexes venation normal, last section of fifth vein almost twice as long as the preceding section, sixth vein obliterated before reaching the wing margin. Length 2.5 to 4 mm. Two males and one female, collected June 16.

Habitat.—Sitka, Alaska.

Type.—Cat. no. 5229, U. S. National Museum.

Near *setosa*, but in that species the sixth vein is prolonged to the wing margin, and the dorsal piece of the male hypopygium is destitute of spinous processes at its apex.

***Rhamphomyia setosa* Coquillett.**

Rhamphomyia setosa COQUILLETT, Proc. U. S. Nat. Museum, p. 426, 1896.

Berg Bay, June 10; Yakutat, June 21; Popof Island, July 8 and 10; Saldovia, July 21; Juneau, Alaska, July 26: Nine specimens of both sexes. This species was originally described from the White Mountains, New Hampshire. In the original description, two errors occur, due to imperfect or abnormal specimens which served for the

type and co-types; the middle lamellæ, or claspers, do not bear a process before their tips, the appearance in the type specimen being due to a matting of the bristly hairs at this point, and the enlarged base of the filament is present in most if not in all of the species, but in normal specimens is concealed from view.

Rhamphomyia anthracodes sp. nov.

Black, the hairs of the male abdomen, except dorsally, light yellow; eyes of the male separated almost as widely as the posterior ocelli, third joint of antennæ slightly over twice as long as wide, three times as long as the style, proboscis slightly longer than height of head, body polished, mesonotum not distinctly vittate, its hairs sparse and rather short, scutellum bearing from four to six hairs, abdomen of male bearing many long hairs along the sides, hypopygium very large, ascending, claspers inverted subtriangular, the base truncate, the apex convex, the posterior margin rather densely fringed with long, yellowish, bristly hairs, emargination at apex of dorsal piece not reaching half way to its center, filament thread-like, the exposed portion about one and one-half times as long as the first joint of the hind tarsi, a rather strong curvature a short distance from the base; legs robust, hind tibiæ of male fringed with long hairs on the outer and inner sides, first joint of hind tarsi subequal in thickness to that of the front ones, its upper edge fringed with rather long hairs, in the female the middle and hind femora and their tibiæ are fringed on both sides with nearly erect scales; wings of male hyaline, of female pale brown, more yellowish brown at the base, in both the veins and stigma dark brown, venation normal, sixth vein obliterated before reaching the wing margin. Length 4 to 5 mm. Two males and one female.

Habitat.—Metlakahtla, June 4; Sitka, Alaska, June 16.

Type.—Cat. no. 5230, U. S. National Museum.

Rhamphomyia atrata sp. nov.

Black, including the hairs; eyes of male contiguous, third joint of antennæ slightly over three times as long as broad, about three times as long as the style, proboscis twice as long as height of head, body opaque, mesonotum not vittate, its hairs quite abundant and long, scutellum bearing six bristles, hairs on sides of abdomen quite numerous and rather long, hypopygium small, obliquely ascending, claspers of nearly uniform width, the outer lower corner considerably prolonged, dorsal piece cleft from apex to beyond the center, filament rather robust, the exposed portion nearly straight, slightly less than half as long as the first joint of the hind tarsi, the latter about twice as thick

as that of any of the other tarsi; hairs on outer side of hind tibiæ sparse and rather short, the inner side only pubescent; wings grayish hyaline, veins and stigma dark brown, last section of fifth vein over three times as long as the preceding section, sixth vein prolonged to the wing margin. Length 3 mm. A male specimen, collected June 16.

Habitat.—Sitka, Alaska.

Type.—Cat. no. 5231, U. S. National Museum.

Rhamphomyia macrura sp. nov.

Black, the hairs also black, stems of halteres yellow, the knobs brown; eyes of male contiguous, third joint of antennæ four times as long as wide, six times as long as the style, proboscis slightly longer than height of head; thorax opaque, gray pruinose, mesonotum marked with three slightly polished, black vittæ, its hairs sparse and rather long, scutellum bearing six bristles, abdomen slightly polished, thinly gray pruinose, rather thickly covered with long hairs, hypopygium unusually long, ascending, claspers subtriangular, very sparsely covered with long hairs, at the apex bearing an elongate ovate process, like a second joint, more than one-third as long as the basal part and densely beset with long hairs on the lower side and apex, filament bristle-like, the exposed portion over five times as long as the first joint of the hind tarsi; hairs of hind tibiæ sparse and rather short, first joint of front tarsi sublanceolate, thicker than the tibiæ and nearly twice as thick as that of the hind tarsi; wings grayish, pale smoky in the costal cell, stigma and veins dark brown, last section of fifth vein one and one-half times as long as the preceding section, sixth vein prolonged to the wing margin. Length 4 to 5 mm. Ten males.

Habitat.—Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Orca, Alaska, June 27.

Type.—Cat. no. 5232, U. S. National Museum.

Near *clavigera*, but in that species the first joint of the front tarsi is not thickened.

Ocydromia glabricula (Fallen).

Empis glabricula FALLEN, Diptera Sueciæ, Empidæ, p. 33, 1816.

Sitka, Alaska: A single specimen, taken June 16. This European species was reported as occurring in this country twenty-two years ago. The U. S. National Museum contains a specimen collected in Colorado.

Platypalpus lateralis Loew.

Platypalpus lateralis LOEW, Berliner Ent. Zeitsch., p. 89, 1864.

Muir Inlet, June 12; Sitka, June 16; Yakutat, June 21; Popof

Island, Alaska, July 8 to 12: Twenty-three specimens. The type locality of this species is the White Mountains, New Hampshire.

***Platypalpus flavirostris* Loew.**

Platypalpus flavirostris LOEW, Berliner Ent. Zeitsch., p. 90, 1864.

Popof Island, Alaska: Five specimens, collected July 8 to 11. The type locality of this species is also the White Mountains, New Hampshire. Some of the specimens have the head yellow, as in *P. tersus* Coq., from which they may readily be distinguished by the broad front; in both sexes the front at its narrowest part is about one-third as wide as the distance from the lowest ocellus to the insertion of the antennæ, greatly widening upwardly, whereas, in *tersus* the front only slightly widens upwardly, and at its narrowest point is only about one-eighth as wide as the distance from the lowest ocellus to the antennæ.

***Platypalpus diversipes* sp. nov.**

Black, the palpi and halteres whitish, legs yellow, bases of coxæ, upper side of front femora, broad apices of other femora, of the tibiæ and whole of tarsi, except base of the first joint, black; head polished, the face opaque, whitish pruinose, third joint of antennæ only slightly longer than broad, body polished, pleura opaque, thinly gray pruinose; front femora considerably thickened, about two-thirds as thick as the middle ones; wings hyaline, veins yellowish brown, first and second basal cells subequal in length. Length 1.5 mm. Three males and twelve females, collected July 8 to 13.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5233, U. S. National Museum.

***Platypalpus gilvipes* sp. nov.**

Black, the first two joints of antennæ, palpi, halteres and legs, including the coxæ, yellow, last joint of tarsi brown; third joint of antennæ about twice as long as wide, head polished, the face opaque, white pruinose, body polished, the front end of pleura to posterior side of front coxæ, also the lateral margins of metanotum, encroaching slightly on the pleura, opaque, gray pruinose; front femora noticeably thickened, about two-thirds as thick as the middle ones; wings hyaline, veins brown, first and second basal cells subequal in length. Length 2 to nearly 3 mm. Four males and five females, collected July 8 to 12.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5234, U. S. National Museum.

Closely related to *lateralis*, but in that species the entire pleura, ex-

cept a spot above the middle coxæ, is opaque, gray pruinose, and the entire antennæ are brown or black.

Phoneutisca bimaculata Loew.

Phoneutisca bimaculata LOEW, Berliner Ent. Zeitsch., n. 19, 1863.

Muir Inlet, Alaska: Seven specimens, taken June 12. Originally described from Alaska.

Scioldromia bicolor (Loew).

Synamphotera bicolor LOEW, Berliner Ent. Zeitsch., p. 18, 1863.

Popof Island, Alaska: Two specimens, collected July 8 and 12. Originally described from Alaska.

Mantipeza valida (Loew).

Hemerodromia valida LOEW, Berliner Ent. Zeitsch., p. 208, 1862.

Popof Island, Alaska: A single specimen, captured July 9. This species was originally described from the region about Hudson Bay, British America.

Family DOLICHOPODIDÆ.

Dolichopus discifer Stannius.

Dolichopus discifer STANNIUS, Isis, p. 57, 1831.—SCHINER, Fauna Austriaca, Dipt., I, p. 216, 1862.—LOEW, Monographs Dipt. N. Am., II, p. 71, 1864.

Dolichopus tanyfus LOEW, Neue Beitr. Kennt. Dipt., VIII, p. 24, 1861.

Kukak Bay, July 4; Popof Island, July 8 to 11; Kadiak, July 21; Juneau, Alaska, July 26: Twenty-seven specimens. This European species was reported by Dr. Loew to occur in New Hampshire, the southern part of British America and in Alaska about twenty-six years ago, and Osten Sacken has also recorded it from New York.

Dolichopus plumipes (Scopoli).

Musca plumipes SCOPOLI, Entomol. Carn, p. 334, 1763.

Dolichopus plumipes SCHINER, Fauna Austriaca, Dipt., I, p. 217, 1862.—LOEW, Monog. N. Am. Dipt., II, p. 60, 1864.

Dolichopus pennitarsis FALLEN, Diptera Sueciæ, Dolichopidæ, p. 11, 1823.

Sitka, June 16; Yakutat, June 21; Virgin Bay, June 23; Kukak Bay, July 4; Popof Island, July 8 to 10; Kadiak, July 20; Saldovia, Alaska, July 21: Forty specimens. Also a European species, reported by Dr. Loew as occurring in Alaska about twenty-six years ago. It has also been recorded from Canada, South Dakota, and Colorado.

Dolichopus xanthocnemus Loew.

Dolichopus xanthocnemus LOEW, Monog. N. Am. Dipt., II, p. 31, 1864.

Kukak Bay, July 4; Popof Island, July 8 to 12; Kadiak, July 20; Saldovia, Alaska, July 21: Forty-four specimens. Originally described from Alaska.

Dolichopus stenhammari Zetterstedt.

Dolichopus stenhammari ZETTERSTEDT, Diptera Scand., II, p. 521, 1843.

Muir Inlet, June 12; Sitka, June 16; Virgin Bay, June 26; Kukak Bay, Alaska, July 4: Eleven specimens. This European species has been reported from Labrador by Osten Sacken.

Dolichopus festinans Zetterstedt.

Dolichopus festinans ZETTERSTEDT, Diptera Scand., II, p. 507, 1843.

Kukak Bay, July 3; Popof Island, Alaska, July 8 and 9: Four specimens of both sexes. This European species has not heretofore been reported as occurring on this Continent.

Dolichopus barycnemus sp. nov.

Front brassy green, face yellowish gray pruinose, antennæ black, the lower side of the first joint reddish yellow, the third joint ovate, palpi yellow, bristles of sides of occiput yellowish white; body bluish green, tinged in places with brassy, lamellæ of hypopygium white, bordered with black, remainder of hypopygium black; front coxæ yellow, a black, gray pruinose spot at base of outer side, middle and hind coxæ black, gray pruinose, their apices yellow; femora yellow, apices of hind ones black, and with a bristle on the outer side before the tip, front and middle femora bare on the under side, the hind ones ciliate with rather long, black hairs on the median third; front and middle tibiæ yellow, the hind ones, except their extreme bases, black and greatly swollen, more than twice as thick as either of the other tibiæ, all tibiæ bearing many bristles; front tarsi yellow on the first three joints, the remainder black and somewhat compressed, fourth joint slightly dilated, the fifth still more so but less than twice as broad as the third; middle tarsi black, the first joint, except the apex, yellow, about as long as the remaining joints taken together; hind tarsi black, much more robust than the others; halteres yellow, bristles of calypteres black; wings grayish hyaline, smoky brown in front of the third vein, an elongated thickening of the costa at apex of first vein, fourth vein not broken; length 6 mm. A male specimen, collected July 11.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5235, U. S. National Museum.

Closely related to the European *D. atritibialis* Zetterstedt, but the latter is credited with having the antennæ yellow, the apex and upper side of the third joint black, the face silvery white pruinose and the hind femora bare on the under side.

***Dolichopus varipes* sp. nov.**

Differs from the above description of *barycnemus* only as follows: Lower half of first two joints of antennæ yellow, fore coxæ wholly yellow, hind femora wholly black, only pubescent on the under side, middle femora each with a black spot on the median third of the under side, hind tibiæ only slightly swollen, yellow, the apical sixth (less on the outer side) brownish black, last two joints of front tarsi not compressed nor dilated, first joint of middle tarsi shorter than the three succeeding joints taken together, the first three joints slender, yellow, the two others black, compressed and fringed with bristles on the upper side, the fourth joint twice as wide as the third, slightly wider and one-third longer than the fifth; wings wholly hyaline, costa not thickened at apex of first vein; female as in the male except that the middle tarsi are like the front ones. Length about 5 mm. A specimen of each sex, collected July 8 and 10.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5236, U. S. National Museum.

Differs in the coloring of the femora from any other species known to me.

***Dolichopus longimanus* Loew.**

Dolichopus longimanus LOEW, Neue Beitr. Kennt. Dipt., VIII, p. 14, 1861. Monog. Dipt. N. Am., II, p. 38, 1864.

Metlakahtla, in June; Kukak Bay, July 4; Kadiak, Alaska, July 20: Twenty-seven specimens. Originally described from English River, British America; it has also been reported from New York, New Hampshire, and South Dakota.

***Dolichopus plumitarsis* Fallen.**

Dolichopus plumitarsis FALLEN, Diptera Sueciæ, Dolich., p. 10, 1823.—SCHINER, Fauna Austriaca, Dipt., I, p. 216, 1862.—ZETTERSTEDT, Dipt. Scand., II, p. 556, 1843.

Kukak Bay, July 4; Popof Island, Alaska, July 10: Three male specimens. A European species, not heretofore reported from this Continent.

***Dolichopus lobatus* Loew**

Dolichopus lobatus LOEW, Neue Beitr. Kennt. Dipt., VIII, p. 24, 1861. Monog. Dipt. N. Am., II, p. 72, 1864.

Kukak Bay, Alaska: A specimen of each sex, taken July 4. Originally described from English River, British America, and also reported from South Dakota, Illinois, and Michigan.

Porphyrops consobrinus Zetterstedt.

Porphyrops consobrinus ZETTERSTEDT, Dipt. Scand., II, p. 471, 1843; VIII, p. 3061, 1849.

Yakutat, June 21; Kukak Bay, Alaska, July 4: A specimen of each sex. This is a European species, not heretofore reported as occurring on this Continent.

Sympycnus cuprinus Wheeler.

Sympycnus cuprinus WHEELER, Proc. Cal. Acad. Sciences, p. 50, 1899.

Popof Island, July 10 to 12; Juneau, Alaska, July 25 and 26: Seven specimens. Originally described from the vicinity of Monterey, Calif.

Hydrophorus glaber (Walker).

Medeterus glaber WALKER, List Dipt. Ins. Brit. Museum, III, p. 655, 1849.

Metlakahla, Alaska: A single specimen, collected June 4. Originally described from Albany River, British America.

Family SYRPHIDÆ.

Pipiza pistioides Williston.

Pipiza pistioides WILLISTON, Synopsis N. Am. Syrphidæ, p. 29, 1886.

Fox Point, Alaska: Three specimens, collected July 28. Originally described from New Hampshire; the U. S. National Museum also contains specimens from Maine, New York, and Colorado.

Chilosia occidentalis Williston.

Chilosia occidentalis WILLISTON, Proc. Am. Phil. Soc., p. 305, 1882. Synopsis N. Am. Syrphidæ, p. 41, 1886.

Virgin Bay, June 25; Popof Island, Alaska, July 10 and 12: Three specimens. Originally described from California; there is also a specimen in the U. S. National Museum from Colorado.

Chilosia borealis sp. nov.

Male: Head black; frontal triangle sulcate in middle, its hairs black, those of the vertex mixed yellow and black; face polished, the upper margin and narrow border to the eyes gray pruinose, hairs along the eyes short, sparse, whitish, median portion of face bare, central tubercle prominent, a deep, concave space below it, the oral margin protruding,

face only slightly produced downward; first two joints of antennæ black, the third dark brown, orbicular, as wide as long, the arista black, almost bare; eyes densely covered with rather long yellowish or black hairs; body greenish black, polished, the hairs mixed yellow and black, on front part of mesonotum and sides of abdomen chiefly yellow, scutellum bearing several marginal black, bristly hairs, second and third segments of abdomen, except the sides and front angles, of a purer black color, venter polished, its hairs yellow; legs black, extreme apices of the femora, broad bases and narrower apices of the tibiæ yellow; halteres yellow, center of the knobs brown; wings grayish hyaline, sometimes tinged with yellow on the costo-basal half, the veins brown, stigma pale yellowish.

Female: Differs from the male as follows: Hairs of front and of body almost wholly yellow, front not sulcate, abdomen destitute of purer black portions, halteres wholly light yellow. Length 5 to 7 mm. Four males and seventeen females.

Habitat.—Yakutat, June 21; Virgin Bay, June 25; Kukak Bay, July 1 and 4; Kadiak, July 20; Saldovia, Alaska, July 21.

Type.—Cat. no. 5237, U. S. National Museum.

Closely related to *occidentalis*, but in that species the sides of the median portion of the face are hairy, and the size is much larger.

***Chilosia alaskensis* Hunter.**

Chilosia alaskensis HUNTER, Canadian Entom., p. 124, 1897.

Yakutat, Alaska: A single specimen, collected June 21. Originally described from Alaska.

***Chilosia lasiophthalma* Williston.**

Chilosia lasiophthalma WILLISTON, Proc. Am. Phil. Soc., p. 306, 1882.
Synopsis N. Am. Syrphidæ, p. 40, 1886.

Yakutat, June 21; Kukak Bay, Alaska, July 1: Five specimens. Originally described from Colorado.

***Chilosia tristis* Loew.**

Chilosia tristis LOEW, Berliner Entom. Zeitsch., p. 312, 1863.

Saldovia, Alaska, July 21: Three specimens. Originally described from the Red River, British America.

***Chilosia plutonia* Hunter.**

Chilosia plutonia HUNTER, Canadian Ent., p. 125, 1897.

Chilosia gracilis HUNTER, loc. cit., p. 126.

Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Kukak Bay, July 1 and 4; Popof Island, July 8 to 15; Kadiak, July 20;

Saldovia, July 21; Fox Point, Alaska, July 28: Seventy-two specimens, of both sexes. Originally described from Alaska, the two sexes having been described as separate species.

***Chilosia pulchripes* Loew.**

Chilosia pulchripes LOEW, Verhandlungen Zool.-Bot. Vereins, p. 19, 1857.—SCHINER, Fauna Austr., Dipt., I, p. 281, 1862.—BECKER, Revision Gatt. Chilosia, p. 372, 1894.

Kukak Bay, July 1 and 4; Saldovia, Alaska, July 21: Nine specimens. A European species, not heretofore reported as occurring on this Continent.

***Melanostoma mellinum* (Linné).**

Musca mellinum LINNÉ, Fauna Suec., p. 1820, 1761.

Melanostoma mellinum SCHINER, Fauna Austriaca, Dipt., I, p. 291, 1862.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 49, 1886.

Metlakahtla, June 4; Berg Bay, June 10; Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Kukak Bay, July 1; Popof Island, July 8 to 15; Kadiak, July 20; Saldovia, July 21; Juneau, July 25; Fox Point, Alaska, July 28: One hundred and fifty-one specimens. This is also a European species reported as occurring on this Continent from Canada and Alaska, on the north, to Argentina, South America, on the south.

***Melanostoma trichopus* Thomson.**

Syrphus trichopus THOMSON, Kongliga Sven. Freg. Eng. Resa, p. 502, 1868.

Metlakahtla, June 4; Kukak Bay, July 1; Popof Island, Alaska, July 8 and 9. Four specimens. Originally described from California.

***Platychirus peltatus* (Meigen).**

Syrphus peltatus MEIGEN, Syst. Besch. Eur. Zweif. Ins., III, p. 334, 1822.

Platychirus peltatus SCHINER, Fauna Aust., Diptera, I, p. 295, 1862.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 58, 1886.

Lowe Inlet, British Columbia, June 3; Sitka, June 16; Kukak Bay, July 1; Popof Island, July 8 to 14; Fox Point, Alaska, July 28: Nineteen specimens. A European species heretofore reported as occurring in this country from New Hampshire and Pennsylvania to Alaska and Colorado.

***Platychirus tenebrosus* sp. nov.**

Male: Head black, its hairs black, those on lower part of occiput whitish, sides of frontal triangle bronze green, head at anterior oral margin noticeably shorter than at base of antennæ, face polished, the tubercle very small; antennæ black, the third joint dark brown, slightly longer than wide, mouth parts polished black; thorax and scutellum

black, polished, the hairs mixed yellow and black, a whitish pruinose spot on lower part of the sternopleura and metapleura; abdomen black, somewhat velvety, opaque, the first segment, sides of abdomen except hind angles of the third and fourth segment, also the fifth segment and genitalia, polished and having a brassy tinge, a pair of yellow spots on the second, third, and fourth segments, not touching the front nor lateral margin of the segments, those on the second the smallest, nearly circular, on the third segment the largest, elliptical, extending lengthwise with the segment, those on the fourth rhomboidal; front legs yellow, the coxæ, posterior side of the femora except at the apex, and a streak on outer side of the tibiæ, black, apices of tibiæ and the first tarsal joint except its apex, whitish, tibiæ greatly dilated at the apex, on the inner side gradually dilated for three-fourths of its length, then slightly narrowed to the apex, on the outer side rather abruptly dilated on the last third of its length, slightly narrowing to the apex, the outer angle prolonged considerably beyond the inner; tarsi dilated, tapering gradually to the fourth joint, the latter slightly narrower than the fifth, the first joint about two-thirds as wide as broadest part of the tibiæ, about one and one-half times as long as broad, femora on the posterior and under sides bearing many rather long black bristly hairs, the tibiæ and tarsi destitute of hairs; middle and hind legs black, the knees and apices of the tibiæ yellowish, femora bearing many rather long hairs, the tibiæ and tarsi destitute of them; wings grayish-hyaline, brownish at base and tinged with smoky along the anterior veins, stigma yellow, halteres also yellow.

Female: Differs from the male as follows: Hairs of head largely yellow, front tinged with bronze, face, except the tubercle, grayish pruinose, extending on sides of front to its middle where it is conically expanded toward the center of the front, thorax and scutellum tinged with bronze, their hairs yellow; abdomen bronze black, polished, the yellow spots nearly circular; front tibiæ gradually and moderately dilated, their tarsi noticeably widened, middle femora, their tibiæ, and first two joints of their tarsi, yellow, both ends of the hind femora and tibiæ also yellow, wings not brown at base nor tinged with smoky. Length 7 mm. One male and two females.

Habitat.—Kukak Bay, July 1; Popof Island, July 8; Kadiak, Alaska, July 28.

Type.—Cat. no. 5238, U. S. National Museum.

Readily recognized by the shortness of the lower part of the head, the remoteness of the abdominal yellow spots from the margins of the segments, the absence of hooked bristles on the front femora of the

male, his simple middle tibiæ and the absence of bristly hairs on all the tibiæ.

Platychirus æratus sp. nov.

Male: Differs from the above description of *tenebrosus* only as follows: Frontal triangle and face, except the tubercle, thinly grayish pruinose, thorax and scutellum bronze black, the hairs yellow; abdomen marked with a pair of gray pruinose, bronze colored, subelliptical spots at the anterior outer angles of the third and fourth segments; front femora, except the apices, black, their tibiæ gradually and moderately dilated toward the apices, their tarsi only moderately dilated and of nearly an equal width, the first joint almost as wide as broadest part of the tibiæ, about twice as long as wide; middle tarsi brownish yellow, the bases broadly yellow.

Female: Resembles the male with these exceptions: Lower half of front thinly gray pruinose, most dense along the eyes, abdomen polished and destitute of spots; front femora sometimes yellow except on the outer side, their tibiæ only slightly dilated, middle femora, tibiæ, and tarsi sometimes yellow except on posterior sides of femora, wings pure hyaline. Length 5 to 7 mm.

Two males and two females, collected June 12.

Habitat.—Muir Inlet, Alaska.

Type.—Cat. no. 5239, U. S. National Museum.

A very slender species, closely related to *albimanus*, but in the latter the head is much longer at the anterior oral margin than at base of antennæ, the front femora of the male bear several hooked bristles on the posterior side before the middle, his front and middle tibiæ have several rather long bristly hairs on the outer side, and the abdomen of the female is spotted nearly the same as in the male.

Platychirus albimanus (Fabricius).

Syrphus albimanus FABRICIUS, Species Insectorum, II, p. 434, 1781.

Platychirus albimanus SCHINER, Fauna Austr., Diptera, I, p. 294, 1862.

Sitka, June 16; Popof Island, Alaska, July 14 and 16: Three males and one female. A European species, not heretofore reported from this Continent.

Leucozona leucorum (Linné).

Musca leucorum LINNÉ, Fauna Suecica, p. 1803, 1761.

Leucozona leucorum SCHINER, Fauna Austriaca, Diptera, I, p. 299, 1862.—

WILLISTON, Synopsis N. Am. Syrphidæ, p. 62, 1886.

Popof Island, July 13; Saldovia, July 21; Juneau, Alaska, July

25 : Three specimens. Also a European species, hitherto reported as occurring in Canada, Colorado, and Washington.

Syrphus arcuatus (Fallen).

Scæva arcuata FALLEN, Diptera Sueciæ, Syrphidæ, p. 42. 1816.

Syrphus arcuatus SCHINER, Fauna Austriaca, Dipt., I, p. 305, 1862.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 68, 1886.

Popof Island, July 10; Saldovia, July 21; Juneau, Alaska, July 25 : Three specimens. A European species, heretofore reported as occurring over the northern portion of this Continent, extending southward as far as Virginia and New Mexico.

Syrphus amalopsis Osten Sacken.

Syrphus amalopsis OSTEN SACKEN, Proc. Boston Soc. Nat. Hist., p. 148, 1875.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 69, 1886.

Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Kukak Bay, July 1; Saldovia, July 21; Juneau, July 25; Fox Point, Alaska, July 28: Thirty-six specimens. Originally described from New Hampshire.

Syrphus contumax Osten Sacken.

Syrphus contumax OSTEN SACKEN, Proc. Boston Soc. Nat. Hist., p. 148, 1875.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 71, 1886.

Syrphus bryantii JOHNSON, Entom. News, p. 17, 1898.

Berg Bay, June 10; Muir Inlet, June 12; Kukak Bay, July 1; Popof Island, Alaska, July 8 to 11: Thirty-five specimens. This species was also originally described from New Hampshire; the type of *bryantii* was collected in Alaska, and Mr. Johnson has confirmed the above synonymy in a recent letter.

Syrphus mentalis Williston.

Syrphus mentalis WILLISTON, Synopsis N. Am. Syrphidæ, p. 72, 1886.

Virgin Bay, June 26; Kukak Bay, Alaska, July 1: Two specimens. Originally described from Washington. Its occurrence in Alaska has already been recorded by Mr. W. D. Hunter.

Syrphus velutinus Williston.

Syrphus velutinus WILLISTON, Proc. Am. Phil. Soc., p. 314, 1882. Synopsis N. Am. Syrphidæ, p. 73, 1886.

Fox Point, Alaska: A single specimen, captured July 28. The type locality is Oregon.

Syrphus diversipes Macquart.

Syrphus diversipes MACQUART, Diptères Exotiques, 4^e Sup., p. 155, 1849.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 76, 1886.

Sitka, June 16; Yakutat, June 21; Virgin Bay, June 16; Saldovia, Alaska, July 21: Twenty-seven specimens. Originally described from Newfoundland; it has also been reported from New Hampshire, New York, the shores of Lake Superior, and Washington. A specimen in the U. S. National Museum was collected in Colorado.

***Syrphus gracilis* sp. nov.**

Front polished, black, with a brassy tinge, not pruinose, its hairs black; face polished yellow, a broad median vitta, the oral margin, and cheeks black, the hairs black, those on upper part of occiput yellowish, on the lower part white; eyes bare, antennæ black, mouth parts dark brown, facial tubercle very prominent; thorax polished, metallic bluish bronze, its hairs light colored; scutellum polished, yellow, with a metallic bluish reflection, its hairs black; abdomen polished, black, a pair of small, orbicular, yellow spots on the second segment, situated in front of the middle and close to the lateral margins, posterior margin of the fourth segment and front angles of the fifth, yellow; legs black, apices of front femora and bases of front tibiæ brownish yellow; halteres yellow, the stems brown; wings hyaline, stigma brown. Length 7 mm. A female specimen collected July 25.

Habitat.—Juneau, Alaska.

Type.—Cat. no. 5240, U. S. National Museum.

An unusually slender species, easily recognized by the polished, not pruinose front, and absence of yellow markings on the third abdominal segment.

***Syrphus ribesii* (Linné).**

Musca ribesii LINNÉ, Fauna Suec., p. 1816, 1761.

Syrphus ribesii SCHINER, Fauna Austriaca, Dipt., I, p. 310, 1862.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 77, 1886.

Metlakatla, June 4; Popof Island, July 8 to 15; Juneau, July 25; Fox Point, Alaska, July 28: Nine specimens. A European species, reported as occurring over the greater portion of this Continent, from Washington on the north to Argentina, South America, on the south.

***Syrphus torvus* Osten Sacken.**

Syrphus torvus OSTEN SACKEN, Proc. Boston Soc. Nat. Hist., p. 139, 1875.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 79, 1886.

Juneau, June 25; Kukak Bay, July 21; Popof Island, Alaska, July 8 to 10: Seven specimens. Also a European species. It has been recorded as occurring in Siberia, while on this Continent its reported range is from Greenland to Rhode Island, and in the West from Washington to Colorado. The U. S. National Museum contains sev-

eral specimens which are labeled as having been collected in North Carolina and Georgia.

Syrphus geniculatus Macquart.

Syrphus geniculatus MACQUART, Diptères Exot., II, Part 2, p. 101, 1841.—
WILLISTON, Synopsis N. Am. Syrphidæ, p. 84, 1880.

Kukak Bay, July 1; Popof Island, Alaska, July 8 to 15: Four specimens. Originally described from Newfoundland; it has also been reported from New Hampshire and Alaska.

Syrphus glacialis (Johnson).

Melanostoma glacialis JOHNSON, Entom. News, p. 18, 1898.

Berg Bay, June 10; Yakutat, June 21; Kukak Bay, July 4; Popof Island, July 8 to 13; Kadiak, Alaska, July 20: Nine specimens. The type locality of this species is Alaska.

Syrphus macularis (Zetterstedt).

Scæva macularis ZETTERSTEDT, Diptera Scand., II, p. 730, 1843.

Yakutat, Alaska: Eight specimens, of both sexes, collected June 21. A European species, not heretofore recorded as occurring on this Continent.

Didea laxa Osten Sacken.

Didea laxa OSTEN SACKEN, Bulletin Buffalo Soc. Nat. Hist., p. 56, 1875.

Saldovia, Alaska: A single specimen, collected July 21. The specimens on which the original description was founded were collected in Maine, New Hampshire, and on the shores of Lake Superior. In the West, this species has been recorded as occurring from Washington to Mexico.

Sphærophoria sulphuripes (Thomson).

Syrphus sulphuripes THOMSON, Kongliga Sven. Freg. Eug. Resa, p. 501, 1868.

Sphærophoria sulphuripes WILLISTON, Synopsis N. Am. Syrphidæ, p. 106, 1886.

Fox Point, Alaska: A single specimen, taken July 28. Originally described from California.

Neosciasia globosa (Walker).

Ascia globosa WALKER, List Dipt. Ins. British Museum, III, p. 546, 1849.

Neosciasia globosa WILLISTON, Synopsis N. Am. Syrphidæ, p. 111, 1886.

Metlakatla, June 4; Virgin Bay, June 26; Popof Island, Alaska, July 8 to 18: Fourteen specimens. This species was originally described from New York, and has been reported from Connecticut and

Oregon. The U. S. National Museum also contains a specimen collected in Colorado.

***Sphegina infuscata* Loew.**

Sphegina infuscata LOEW, Berliner Ent. Zeitsch., p. 13, 1863.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 114, 1886.

Lowe Inlet, British Columbia, June 3; Farragut Bay, June 5; Sitka, June 16; Yakutat, June 21; Virgin Bay, Alaska, June 26: Forty-eight specimens. The abdomen of the male is sometimes of the same color as that of the female. This species was originally described from Sitka, and has also been reported from Oregon. The U. S. National Museum contains specimens collected in Colorado and New Hampshire.

***Baccha obscuricornis* Loew.**

Baccha obscuricornis LOEW, Berliner Ent. Zeitsch., p. 15, 1863.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 123, 1886.

Lowe Inlet, British Columbia, June 3; Sitka, Alaska, June 16: Three specimens. Originally described from Sitka; it has also been reported from Oregon and New Mexico.

***Myiolepta bella* Williston.**

Myiolepta bella WILLISTON, Proc. Am. Phil. Soc., p. 308, 1882. Synopsis N. Am. Syrphidæ, p. 128, 1886.

Virgin Bay, Alaska: A male specimen, collected June 26. Originally reported from Washington and Oregon.

***Brachyopa notata* Osten Sacken.**

Brachyopa notata OSTEN SACKEN, Bulletin Buffalo Soc. Nat. Hist., p. 68, 1875.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 132, 1886.

Sitka, June 16; Yakutat, June 21; Virgin Bay, Alaska, June 26: Ten specimens. Originally described from New Hampshire, and also recorded from Washington and Oregon.

***Arctophila flagrans* Osten Sacken.**

Arctophila flagrans OSTEN SACKEN, Bulletin Buffalo Soc. Nat. Sci., p. 69, 1875.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 158, 1886.

Popof Island, Alaska: A single specimen, collected July 10. This species was originally described from Colorado, and has been reported from New Mexico.

***Volucella facialis* Williston.**

Volucella facialis WILLISTON, Proc. Am. Phil. Soc., p. 316, 1882. Synopsis N. Am. Syrphidæ, p. 137, 1886.

Kukak Bay, July 1; Popof Island, July 13; Kadiak, July 20;

Saldovia, Alaska, July 21: Thirteen specimens. The type locality of this species is in California, and the species has also been recorded from Colorado.

Sericomyia chalcopyga Loew.

Sericomyia chalcopyga LOEW, Berliner Ent. Zeitsch., p. 12, 1863.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 156, 1886.

Sitka, June 16; Fox Point, Alaska, July 28: Eight specimens. Originally described from Sitka; it has been reported from Washington and Oregon. The U. S. National Museum also contains a specimen collected by Mrs. A. T. Slosson, at Franconia, New Hampshire.

Eristalis meigenii Wiedemann.

Eristalis meigenii WIEDEMANN, Ausser. Zweif. Insekten, II, p. 177, 1830.
Eristalis brousii WILLISTON, Proc. Am. Phil. Soc., p. 323, 1882. Synopsis N. Am. Syrphidæ, p. 165, 1886.

Juncau, Alaska: Two specimens, collected July 25. This species was originally described from Uruguay, South America; it has also been reported as occurring from Alaska and Canada to Colorado and Pennsylvania. The synonymy is on the authority of Dr. Williston.

Eristalis occidentalis Williston.

Eristalis occidentalis WILLISTON, Proc. Am. Phil. Soc., p. 322, 1882. Synopsis N. Am. Syrphidæ, p. 167, 1886.

Metlakahltla, June 4; Sitka, June 16; Virgin Bay, June 26; Kadiak, July 20; Juncau, July 25; Fox Point, Alaska, July 28: Thirty-one specimens. This species was originally described from Washington, and has already been reported as occurring in Alaska.

Eristalis flavipes Walker.

Eristalis flavipes WALKER, List Dipt. Ins. Brit. Museum, III, p. 633, 1849.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 168, 1886.

Fox Point, Alaska: A single specimen, captured July 28. Originally described from Albany River, British America; it has also been reported as occurring from Washington and Canada to Colorado and Rhode Island.

Eristalis compactus Walker.

Eristalis compactus WALKER, List Dipt. Ins. Brit. Museum, III, p. 619, 1849.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 169, 1886.

Kadiak, Alaska: Two specimens, taken July 19 and 20. This species was originally described from Albany River, British America; it has also been recorded from Canada, New Hampshire, and Connecticut.

***Eristalis obscurus* Loew.**

Eristalis obscurus LOEW, Berliner Ent. Zeitsch., p. 171, 1865.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 175, 1886.

Fox Point, Alaska: Three specimens, captured July 28. Originally described from Red River, British America.

***Helophilus lunulatus* Meigen.**

Helophilus lunulatus MEIGEN, System. Besch. Eur. Zweif. Insekten, III, p. 370, 1822.—SCHINER, Fauna Austr., Dipt., I, p. 340, 1862.

Kadiak, Alaska: A single specimen, collected July 20. This is a European species, not heretofore reported as occurring on this Continent. Specimens are contained in the U. S. National Museum collection taken at Toronto and Ottawa, Canada, by Messrs. W. Brodie and W. H. Harrington. Four of these were received from Mr. Brodie under the name of *Helophilus canadensis* Brodie; this name appears in the published Check-list of the Insects of Canada, but no description accompanies the name, nor has any ever been published so far as I am aware.

***Helophilus dychei* Williston.**

Helophilus dychei WILLISTON, Canadian Ent., p. 136, 1897.

Berg Bay, June 10; Kadiak, July 20; Juneau, July 25; Fox Point, Alaska, July 28: Ten specimens. Originally described from Alaska.

***Criorhina armillata* Osten Sacken.**

Criorhina armillata OSTEN SACKEN, Bulletin Buffalo Soc. Nat. Sci., p. 68, 1875.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 213, 1886.

Fox Point, Alaska: A single specimen, collected July 28. The type locality of this species is Quebec, Canada. The U. S. National Museum contains specimens from New Hampshire and Montana.

***Criorhina scitula* Williston.**

Criorhina scitula WILLISTON, Proc. Am. Phil. Soc., p. 331, 1882. Synopsis N. Am. Syrphidæ, p. 215, 1886.

Fox Point, Alaska: A single specimen, captured July 28. Originally described from Washington. The U. S. National Museum also contains a specimen from Mt. Hood, Oregon.

***Criorhina tricolor* sp. nov.**

Eyes of male separated as widely as the posterior ocelli, upper half of front brownish black, the lower half brownish yellow, on the sides broadly yellow pruinose, face yellow, opaque, yellow pruinose, deeply concave below the antennæ, the lower portion strongly convex, cheeks polished, brownish black, antennæ brownish yellow, upper side of

third joint brownish black, first joint cylindrical, slightly longer than the second, the third transversely oval, nearly twice as wide as long, arista black, proboscis dark brown, rather short and robust; thorax and scutellum polished, bronze black, the hairs long and abundant, whitish, a transverse band of black ones behind middle of mesonotum; abdomen polished, the first two segments light yellow, covered with long, abundant whitish hairs, remainder of abdomen black, its hairs golden yellow; legs black, tibiæ yellowish, with a brown band before the middle and another near the tip, first three tarsal joints brownish yellow; wings hyaline, stigma grayish brown. Length 12 mm. A male specimen, collected June 16.

Habitat.—Sitka, Alaska.

Type.—Cat. no. 5241, U. S. National Museum.

Closely related to *coquilletti*, but in that species the first two segments of the abdomen are black, and covered with black hairs, etc.

***Xylota barbata* Loew.**

Xylota barbata LOEW, Berliner Ent. Zeitsch., p. 70, 1864.—WILLISTON, Synopsis N. Am. Syrphidæ, p. 233, 1886.

Juneau, Alaska: A single specimen, collected July 25. Originally described from Alaska, it has also been reported from Washington, Oregon, and California.

Family PHORIDÆ.

***Trineura aterrima* (Fabricius).**

Musca aterrima FABRICIUS, Entom. System., IV, p. 334, 1794.

Trineura aterrima SCHINER, Fauna Austriaca, Dipt., II, p. 347, 1864.

Berg Bay, June 10; Muir Inlet, June 12; Sitka, June 16; Yakutat, June 21; Popof Island, July 8 to 12; Kadiak, July 20; Saldovia, Alaska, July 21: Twenty-seven specimens. A European species, first reported as occurring in this country about forty years ago. The U. S. National Museum contains specimens from the White Mountains, New Hampshire, and Summit County, Colorado.

***Phora rufipes* (Meigen).**

Trineura rufipes MEIGEN, Klass. Besch. Eur. Zweif. Insekten, I, p. 313, 1804.

Phora rufipes SCHINER, Fauna Austriaca, Dipt., II, p. 340, 1864.

Muir Inlet, June 12; Sitka, Alaska, June 16: Two specimens. Also a European species, first recorded from this country at the same time as the preceding species.

***Phora fungicola* Coquillett.**

Phora fungicola COQUILLETT, Canadian Ent., p. 106, 1895.

Popof Island, Alaska: Three specimens, collected July 10, 11, and 14. Originally described from New Mexico, it has also been recorded as occurring in New Jersey.

Family **ÆSTRIDÆ**.

Ædemagena tarandi (Linné).

Æstrus tarandi LINNÉ, Fauna Suecica, p. 1731, 1761.—ZETTERSTEDT, Dipt. Scand., III, p. 973, 1844.

Popof Island, Alaska: A single specimen, captured July 12. This is a European species, first recorded from North America about fifty-eight years ago. The U. S. National Museum contains a specimen collected at Point Barrow, Alaska, August 15, 1872, by Mr. John Murdock.

Family **TACHINIDÆ**.

Thryptocera flavipes Coquillett.

Thryptocera flavipes COQUILLET, Revision Tachinidæ, p. 58, 1897.

Yakutat, June 21; Virgin Bay, June 26; Orca, Alaska, June 27: Thirty-five specimens. Originally described from the mountains of New Hampshire.

Didyma pullula van der Wulp.

Didyma pullula VAN DER WULP, Biologia Cent.-Amer., Diptera, II, p. 162, 1890.

Farragut Bay, Alaska: A single specimen, collected June 1. The type locality of this species is in the high mountains of Guerrero, Mexico.

Linnaemyia picta (Meigen).

Tachina picta MEIGEN, Syst. Besch. Eur. Zweif. Insekten, IV, p. 261, 1824.

Micropalpus picta SCHINER, Fauna Aust., Diptera, I, p. 429, 1862.

Linnaemyia picta COQUILLET, Revision Tachinidæ, p. 87, 1897.

Fox Point, Alaska: A single specimen, collected July 28. This European species was first recorded from this country by the writer about three years ago, the localities being in New Hampshire and Massachusetts.

Panzeria radicum (Fabricius).

Musca radicum FABRICIUS, Systema Entom., p. 778, 1775.

Nemoræa radicum SCHINER, Fauna Austriaca, Dipt., I, p. 452, 1862.

Panzeria radicum COQUILLET, Revision Tachinidæ, p. 88, 1897.

Fox Point, Alaska: A single specimen, collected July 28. Also a European species, first reported from this country at the same time as the preceding species. It has heretofore been recorded as occurring

from New Hampshire, southward to the District of Columbia, westward to Texas and northward to British Columbia.

***Paraphyto borealis* sp. nov.**

Black, the anterior portion of the cheeks and lower part of sides of face reddish brown, median depression sometimes of the same color; front of male at narrowest point narrower than distance between the posterior ocelli, in the female one and one-half times as wide as either eye, the sides and face dark gray pruinose, a dark brownish spot on each side of face near lower end of front, visible only in certain lights, frontal bristles not descending to base of second antennal joint, two pairs of orbital bristles in the female, wanting in the male, antennæ reaching lowest fourth of face, the third joint nearly one and one-half times as long as the second, arista thickened on the basal sixth, pubescent, the longest pubescence slightly longer than the greatest diameter of the arista; vibrissæ situated slightly above the oral margin, two or three bristles above each, proboscis rigid and rather slender, the labella small; mesonotum thinly gray pruinose, marked with three black, polished vittæ, four dorsocentral, postsutural macrochætæ and three sternopleural; abdomen somewhat polished, anterior portion of the second, third, and fourth segments gray pruinose, the first three segments bearing marginal, the second and third also with discal macrochætæ, hypopygium uniformly covered with hairs; wings hyaline, the base pale brownish, anterior veins indistinctly bordered with brown, calypteres white. Length 9 mm. A specimen of each sex, collected July 28.

Habitat.—Fox Point, Alaska.

Type.—Cat. no. 5242, U. S. National Museum.

Closely related to *gillettei*, but in that species the eyes of the male are at least twice as wide apart as the distance between the two posterior ocelli, the hairs of the hypopygium are arranged in transverse bands widely separated by bare intervals, there are no brown spots on upper part of the face, and the length is from 12 to 14 mm.

***Echinomyia algens* (Wiedemann).**

Tachina algens WIEDEMANN, Ausser. Zwif. Insekten, II, p. 285, 1830.

Echinomyia algens COQUILLETT, Revision Tachinidæ, p. 144, 1897.

Fox Point, Alaska: A single specimen, collected July 28. This species was originally described from North America, without any mention of a more precise locality. It has been reported as occurring from Canada to New York and westward to British Columbia and California.

Family SARCOPHAGIDÆ.

Cynomyia cadaverina Desvoidy.

Cynomyia cadaverina DESVOIDY, Essai Myod., p. 365, 1830.

Cynomyia americana HOUGH, Entom. News, p. 105, 1898.

Sitka, Alaska: A single specimen, collected June 16. This species was originally described from "Carolina," and has been reported as occurring from Canada to Georgia, and westward to Colorado.

Cynomyia mortisequa (Kirby).

Musca mortisequa KIRBY, Fauna Bor.-Amer., iv, p. 317, 1837.

Cynomyia hirta HOUGH, Entom. News, p. 166, 1898.

Kukak Bay, July 4; Popof Island, July 8; Kadiak, Alaska, July 20: Ten specimens. Originally described from British America, latitude 65°. It has already been reported from Alaska.

Calliphora vomitoria (Linné).

Musca vomitoria LINNÉ, Fauna Suecica, p. 1831, 1761.

Calliphora vomitoria SCHINER, Fauna Austr., Dipt., i, p. 584, 1862.

Sitka, June 16; Kukak Bay, July 1; Popof Island, July 9 and 10; Saldovia, Alaska, July 21: Seven specimens. A European species reported as occurring in this country over twenty years ago. It has also been recorded from Alaska, and the U. S. National Museum contains a specimen collected as far southward as Alabama.

Calliphora viridescens Desvoidy.

Calliphora viridescens DESVOIDY, Essai Myod., p. 437, 1830.

Lowe Inlet, British Columbia, June 3; Metlakahtla, June 4; Yakutat, June 21; Virgin Bay, June 26; Kukak Bay, July 4; Kadiak, July 20; Saldovia, July 21; Juneau, Alaska, July 25: Fourteen specimens. Originally described from 'Carolina'; it is known to occur over the greater portion of this country.

Lucilia cæsar (Linné).

Musca cæsar LINNÉ, Fauna Suecica, p. 1828, 1761.

Lucilia cæsar SCHINER, Fauna Austriaca, Dipt., i, p. 590, 1862.

Lowe Inlet, British Columbia; Kukak Bay, July 4; Popof Island, July 8; Kadiak, Alaska, July 20: Ten specimens. A European species first recorded from this country about sixty years ago, and now occurring in almost every part of North America.

Phormia terrænovæ Desvoidy.

Phormia terrænovæ DESVOIDY, Essai Myod., p. 467, 1830.—HOUGH, Zool. Bulletin, p. 289, 1899.

Juneau, July 25; Fox Point, Alaska, July 28: Six specimens.

Originally described from Newfoundland, but occurring over the greater part of North America.

Family MUSCIDÆ.

Graphomyia maculata (Scopoli).

Musca maculata SCOPOLI, Entom. Carniolica, p. 326, 1763.

Graphomyia maculata SCHINER, Fauna Austriaca, Dipt., I, p. 582, 1862.

Graphomyia americana DESVOIDY, Essai Myod., p. 404, 1830.

Popof Island, Alaska: A single specimen, collected July 10. A European species, first reported from this country about seventy years ago. It has been recorded from Greenland, and specimens are in the National Museum from Virginia and Kansas.

Mesembrina latreillei Desvoidy.

Mesembrina latreillei DESVOIDY, Essai Myod., p. 401, 1830.

Kukak Bay, July 4; Kadiak, July 20; Saldovia, July 21, Juneau, Alaska, July 25: Four specimens. This species was originally described from Nova Scotia, and its most southern recorded limit is Pennsylvania.

Myospila meditabunda (Fabricius).

Musca meditabunda FABRICIUS, Species Insect., II, p. 444, 1781.

Myospila meditabunda SCHINER, Fauna Austriaca, Dipt., I, p. 598, 1862.

Cyrtoneura 4-signata THOMSON, Kongliga Sven. Fregatten Eugenies Resa, p. 549, 1868.

Metlakahtla, June 4; Yakutat, Alaska, June 21: Three specimens. A European species, first reported as occurring in this country about thirty-six years ago.

Family ANTHOMYIIDÆ.

Hyetodesia varipes sp. nov.

Male: Black, the apex of scutellum reddish yellow, apices of front femora and whole of their tibiæ yellowish brown, apices of middle femora, the whole of their tibiæ, also the hind femora and tibiæ, yellow, halteres light yellow; hairs of eyes long and dense, frontal orbits white pruinose, contiguous a short distance in front of the ocelli, or narrowly separated, antennæ reaching about two-thirds of distance to oral margin, the third joint less than twice as long as the second, arista long plumose, the longest hairs about three times as long as greatest diameter of the arista; mesonotum somewhat polished, rather thinly light gray pruinose, marked with four black vittæ; four pairs of post-sutural dorsocentral bristles, no acrostichals in front of the suture,

præsutural intra-alar bristle longer than the adjacent supra-alar, sternopleurals 1 + 2; abdomen yellowish gray pruinose and with darker, olivaceous, reflecting spots; front tibiæ destitute of bristles except at the apices, middle femora ciliate with bristles on the basal two-thirds of the under side, middle tibiæ each bearing three bristles on the posterior side of about their median third, hind femora ciliate the entire length of their anterior-under side and with two bristles on the median third, or penultimate fourth, of their posterior-under side, hind tibiæ each bearing from two to four short bristles on the inner-anterior side, two or three longer ones on the outer-anterior side, all on the median third of the tibia, also one on the outer side near three-fourths of the length of the tibia; front pulvilli as long as the last tarsal joint; wings hyaline, tinged with yellowish brown at base and along the anterior half, hind crossvein strongly sinuous, small and hind crossveins bordered with brown, third and fourth veins diverging, costal spine shorter than the small crossvein, calypteres yellowish.

Female: Same as the male with these exceptions: Middle femora and sometimes the front ones and their tibiæ, yellow; hairs of eyes rather sparse, front nearly twice as wide as either eye, destitute of a pair of præocellar bristles, a dark, changeable spot on upper part of sides of face, front pulvilli much shorter than the last tarsal joint. Length, 8 to 10 mm. Two males and three females.

Habitat.—Sitka, June 16; Kadiak, June 20; Yakutat, June 21; Popof Island, Alaska, July 14.

Type.—Cat. no. 5243, U. S. National Museum.

***Hyetodesia lucorum* (Fallen).**

Musca lucorum FALLEN, Diptera Suec., Muscidæ, p. 55, 1820.

Aricia lucorum SCHINER, Fauna Austr., Diptera, 1, p. 600, 1862.

Kukak Bay, July 4; Popof Island, July 8 to 12; Kadiak, Alaska, July 20: Ten specimens, of both sexes. A European species first reported from this country by Mr. P. Stein about two years ago, recorded as occurring in Massachusetts, Pennsylvania, Kansas, and Idaho.

***Hyetodesia brunneinervis* (Stein).**

Aricia brunneinervis STEIN, Berliner Ent. Zeitsch., p. 183, 1898.

Berg Bay, June 10; Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Kukak Bay, July 4; Popof Island, July 9 to 12; Kadiak, July 20; Saldovia, Alaska, July 21: Forty-seven specimens. Originally described from Idaho.

***Hyetodesia septentrionalis* (Stein).**

Aricia septentrionalis STEIN, Berliner Ent. Zeitsch., p. 184, 1898.

Sitka, June 16; Virgin Bay, June 21; Kukak Bay, July 4; Popof Island, July 8 to 14; Kadiak, July 20; Saldovia, Alaska, July 21: Fifty-five specimens of both sexes. The type locality of this species is Alaska.

***Hyetodesia villicrura* sp. nov.**

Male: Black, the halteres brown; hair of eyes long and dense, frontal vitta at narrowest point narrower than the lowest ocellus, antennæ three-fourths as long as the face, the third joint one and one-half times as long as the second, a white pruinose spot between bases of antennæ, arista long pubescent, the longest slightly more than greatest diameter of the arista; mesonotum polished, not gray pruinose except on the sides, four pairs of postsutural dorsocentral bristles, sternopleurals 1 + 2; abdomen narrowly subovate, slightly over twice as long as wide, polished, thinly olive gray pruinose, the greater portion of the first segment and a dorsal, indistinct, subtriangular spot on the second and third, blackish, hypopygium only slightly projecting; front tibiæ short haired on the lower half of its inner side, interspersed with about three long and four shorter bristly hairs; middle femora densely long haired on the basal two-thirds of the under side, their tibiæ each bearing about five bristles along the outer-posterior side and with about six bristles and a few shorter bristly hairs on the lower two-thirds of the inner-posterior side; hind femora densely long haired on the under side, their tibiæ with similar hairs along the inner, anterior-inner, and posterior-inner sides, the outer side ciliate with rather short bristly hairs interspersed with about four longer bristles on the lower two-thirds; wings pale brownish, changing into grayish hyaline along the hind margin, nearly wholly hyaline in the younger specimens, costal spine minute, third and fourth veins diverging, hind crossvein almost straight; calypteres yellowish white, the lower extending far beyond the upper.

Female: Differs from the male as follows: Halteres yellow, eyes bare, front at narrowest point slightly narrower than either eye, a præocellar, cruciate pair of bristles present; mesonotum opaque, yellowish gray pruinose; abdomen subovate, slightly polished, grayish yellow pruinose, unmarked; front tibiæ destitute of bristles except at the apices, middle femora sparsely short haired on the under side, their tibiæ pubescent on the inner-posterior side but with two or three bristles on lower half of the outer-anterior side; hind femora bearing five or six bristles on the apical half of the under side, and sometimes with a few long hairs on the basal portion; hind tibiæ pubescent, each bearing

about four bristles on the median two-fourths of the anterior-inner side, two or three on median third of the outer-anterior side, and about five on the lower two-thirds of the outer-posterior side; wings hyaline, strongly tinged with yellow at the base. Length, 6 to 8 mm. Thirty males and thirty-one females.

Habitat.—Yakutat, June 21; Kukak Bay, July 4; Popof Island, July 8 to 15; Kadiak, July 20; Saldovia, Alaska, July 21.

Type.—Cat. no. 5244, U. S. National Museum.

***Lasiops frenata* (Holmgren.)**

Aricia frenata HOLMGREN, Ofversigt Vetans.-Akad. Forh., p. 103, 1872.

Muir Inlet, Alaska: A male specimen, collected June 12. Originally described from Greenland.

***Lasiops hirsutula* (Zetterstedt).**

Anthomyza hirsutula ZETTERSTEDT, Insecta Lapp., p. 673, 1840.

Aricia hirsutula ZETTERSTEDT, Diptera Scand., IV, p. 1494, 1845.

Popof Island, Alaska: Two male specimens, taken July 13 and 15. A European species, not before reported as occurring on this Continent.

***Lasiops calvicrura* sp. nov.**

Male: Black, the halteres light yellow; hairs of eyes rather long and quite dense, frontal vitta at narrowest point narrower than the lowest ocellus, antennæ two-thirds as long as the face, the third joint twice as long as the second, arista rather long pubescent, the longest about equal to greatest diameter of the arista; mesonotum polished, two indistinct gray pruinose vittæ in front of the suture, four pairs of postsutural dorsocentral bristles, sternopleurals 1 + 2; abdomen less than twice as long as broad, subelliptical, yellowish gray pruinose and with darker, olivaceous reflecting spots, the greater part of the first segment and a pair of indistinct, subtriangular spots on the second, black, hypopygium projecting very slightly; front tibiæ destitute of bristles, middle femora ciliate with bristles on the entire length of the under side, their tibiæ each bearing a bristle near the middle of the anterior-outer side and with four on the median two-fourths of the posterior-outer side; hind femora ciliate the entire length of the anterior-under and posterior-under sides with bristles which become gradually shorter toward each end of the femur; hind tibiæ short pubescent, each bearing three bristles on about the median third of the anterior-inner side and with four on the median two-fourths of the anterior-outer side; wings pale brownish, changing into grayish hyaline along the hind margin and in the discal cell, third and fourth veins diverging, hind crossvein slightly sinuous, costal spine not longer than

the small crossvein, calypteres yellow, the lower ones projecting far beyond the upper.

Female: Differs from the male as follows: Eyes bare, front at narrowest part almost twice as wide as either eye, no præocellar bristles, third joint of antennæ scarcely one and one-half times as long as the second, arista short pubescent, the longest scarcely half the length of greatest diameter of the arista, mesonotum opaque, bluish gray pruinose, marked with five dark brown vittæ, sternopleurals 1 + 1, abdomen broadly subelliptical, about one and one-third times as long as wide, densely bluish gray pruinose, a pair of dark brown spots along the hind margins of the second and third segments, middle tibiæ each bearing only two bristles, situated on the median third of the posterior side, besides those at the tip, hind femora bearing a few rather short hairs on the under side of its basal half and with five bristles on the apical half; wings hyaline. Length, 6 to 7 mm. Two males and one female, collected July 9, 10, and 12.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5245, U. S. National Museum.

***Limnophora nobilis* Stein.**

Limnophora nobilis STEIN, Berliner Ent. Zeitsch., p. 207, 1898.

Muir Inlet, June 12; Sitka, June 16; Popof Island, July 8 to 12; Saldovia, Alaska, July 21: Twenty-seven specimens. Originally described from Alaska.

***Cœnosia fuscopunctata* Macquart.**

Cœnosia fuscopunctata MACQUART, Diptères Exot., 4^e Suppl., p. 270, 1849.
Cœnosia ovata STEIN, Berliner Ent. Zeitsch., p. 263, 1898.

Popof Island, July 11; Saldovia, Alaska, July 21: Two specimens. Originally described from North America, without any indication of the exact locality; it has been reported as occurring from New Hampshire to Florida, and westward to Illinois.

***Cœnosia lata* Walker.**

Cœnosia lata WALKER, Insecta Saund., Diptera, p. 368, 1856.
Cœnosia canescens STEIN, Berliner Ent. Zeitsch., p. 265, 1898.

Lowe Inlet, British Columbia; Muir Inlet, June 12; Virgin Bay, June 26; Kukak Bay, July 4; Popof Island, July 8 to 14; Saldovia, Alaska, July 21: Twenty specimens. Originally described from the United States, without mention of any more definite locality. It has been recorded from the same region as the preceding species, except that its western limits are stated to be Kansas and South Dakota.

Cænoscia albifrons (Zetterstedt).

Aricia albifrons ZETTERSTEDT, Dipt. Scand., VIII, p. 3301, 1849.

Muir Inlet, June 11 and 12; Popof Island, July 10; Saldovia, Alaska, July 21: Eight specimens. A European species, first recorded from this country about two years ago by Mr. P. Stein, of Genthin, Germany, whose specimens were collected in Massachusetts.

Homalomyia flavivaria sp. nov.

Male: Black, the halteres, except their bases, and a pair of large spots on the second and third abdominal segments, light yellow, the spots on the second segment subquadrate, those on the third subtriangular, also usually a yellow spot at the anterior angles of the fourth segment; frontal orbits whitish pruinose, in immature specimens contiguous for a considerable distance on the median portion, but rather widely separated in mature ones, antennæ almost as long as the face, the third joint one and one-half times as long as the second; mesonotum slightly polished, the sides and pleura light gray pruinose, three pairs of postsutural dorsocentral bristles, sternopleurals 1 + 1; abdomen nearly linear but sometimes widening posteriorly, very thinly gray pruinose; coxæ destitute of stout spines, front tibiæ without bristles except at apices, middle femora gradually thickening toward the middle, then slightly narrowing, with a small, rounded prominence at two-thirds the length of the under side, which is densely covered with short bristles, beyond this the femur is rather suddenly narrowed, and continues so to the apex, the under-posterior side ciliate with long bristles except on the apical fourth, on the anterior-under side bearing two stout spines at one-fourth its length, beyond which it is ciliate with rather long bristles to the prominence, the basal half of the narrowed apical portion bare, the apical half ciliate with about six very short bristles, middle tibiæ each bearing a small, rounded process at one-third of its inner side, the apical half considerably thickened and with rather long pubescence on the inner side, bearing a pair of bristles at three-fourths its length, one on the anterior and the other on the posterior side; hind femora sparsely ciliate with rather short bristles on the basal two-thirds of the anterior-under side, the posterior-under side bare; hind tibiæ each bearing two bristles on the penultimate fifth of the anterior-inner side, one below middle of anterior side, and two on apical half of the anterior-outer side; wings hyaline, fourth vein usually slightly curving toward the third at its apex, calypteres yellowish, the upper projecting beyond the lower.

Female: Abdomen yellow, hind margins of the first three segments

black, front one and one-half times as wide as either eye, two pairs of orbital bristles, no præocellar bristles, middle legs simple, middle femora destitute of spines, the anterior-under and posterior-under sides sparsely ciliate with short bristles, otherwise as in the male. Length, 4 to 5.5 mm. Fifteen males and eight females.

Habitat.—Metlakahtla, June 4; Berg Bay, June 10; Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Kukak Bay, July 4; Popof Island, Alaska, July 10 to 12.

Type.—Cat. no. 5246, U. S. National Museum.

***Homalomyia flavibasis* Stein.**

Homalomyia flavibasis STEIN, Berliner Ent. Zeitsch., p. 171, 1898.

Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Popof Island, July 10 and 12; Juneau, Alaska, July 25: Eleven specimens. The type locality of this species is Illinois.

***Hydrophoria ambigua* (Fallen).**

Musca ambigua FALLEN, Diptera Sueciæ, Musciæ, p. 56, 1820.

Aricia ambigua ZETTERSTEDT, Dipt. Scand., XII, p. 4719, 1855.

Metlakahtla, Alaska: A single specimen, collected June 4. This is also a European species, recorded from Massachusetts and Illinois about two years ago, by Mr. Stein.

***Anthomyia radicum* (Linné).**

Musca radicum LINNÉ, Fauna Suecica, p. 1840, 1761.

Anthomyia radicum SCHINER, Fauna Austriaca, Diptera, 1, p. 645, 1862.

Yakutat, Alaska: A specimen of each sex, collected June 21. This European species was first reported from this country about nineteen years ago, by Mr. R. H. Meade, of Bradford, England. It has been recorded from Canada to Pennsylvania, westward to Idaho.

***Anthomyia mystacea* sp. nov.**

Black, the halteres yellow; front in profile slightly concave, frontal vitta at narrowest part narrower than the lowest ocellus, face strongly concave, oral margin projecting farther forward than the front, vibrissæ not longer than the adjacent bristles; extending obliquely downward and backward from near each vibrissa are several irregular, dense rows of long, upwardly curving bristly hairs, the rows almost equalling length of face, lower part of front projecting more than length of third antennal joint in front of the eyes, antennæ nearly three-fourths as long as the face, the third joint one and one-half times as long as the second, proboscis nearly as long as height of head, the labella very small; mesonotum slightly polished, two median vittæ in front of the

suture, the lateral margins in front of wings and the pleura, gray pruinose, three pairs of postsutural dorsocentral bristles; abdomen depressed, elongate-ellipsoidal, almost one and one-half times as long as broad, subopaque, dark gray pruinose, a broad dorsal vitta and very narrow bases of the segments, black; hypopygium only slightly projecting, opaque, gray pruinose; venter, especially along the sides, densely covered with rather long hairs; middle femora covered on the anterior-under side with short bristles, on the posterior-under side with long bristly hairs, becoming shorter toward apices of the femora; middle tibiæ each bearing a bristle at three-fourths the length of the outer-anterior side, three on lower half of outer-posterior side and two below middle of inner-posterior side; hind femora on the anterior-under side ciliate with long bristles and hairs, the posterior-under side ciliate with shorter bristles which are much shorter on the apical third; hind tibiæ each bearing a bristle below the middle of the inner-anterior side, the outer-anterior side ciliate with about nine rather short bristles on about the median three-fifths, the outer-posterior side ciliate with about three long and three shorter bristles on about the median third; wings hyaline, costal vein pubescent, third and fourth veins slightly converging, hind crossvein very sinuate, calypteres white; length, 6 mm. A male specimen, collected July 28.

Habitat.—Juneau, Alaska.

Type.—Cat. no. 5247, U. S. National Museum.

Hylemyia alcathœ (Walker).

Anthomyia alcathœ WALKER, List Dipt. Ins. British Museum, IV, p. 937, 1849.

Hylemyia flavicaudata BIGOT, Annales Soc. Ent. France, p. 299, 1884.

Hylemyia strigata STEIN, Berliner Ent. Zeitsch., p. 211, 1898.

Sitka, Alaska: Nine specimens, collected June 16. Originally described from Nova Scotia, and has been recorded from Idaho and Washington. The U. S. National Museum also possesses specimens collected at Franconia, New Hampshire, by Mrs. Annie T. Slosson.

Hylemyia variata (Fallen).

Musca variata FÄLLEN, Dipt. Sueciæ, Muscidæ, p. 59, 1820.—SCHINER, Fauna Austriaca, Dipt., I, p. 628, 1862.

Popof Island, Alaska: Six specimens, collected July 8 to 12. A European species, first reported from this country about two years ago by Mr. P. Stein, who recorded it as occurring from Canada to Virginia, westward to Idaho.

Hylemyia marginata Stein.

Hylemyia marginata STEIN, Berliner Ent. Zeitsch., p. 221, 1898.

Sitka, Alaska: A male specimen, collected June 16. The type locality of this species is Colorado.

Hylemyia linearis Stein.

Hylemyia linearis STEIN, Berliner Ent. Zeitsch., p. 219, 1898.

Kukak Bay, Alaska: Two male specimens, collected July 4. This species was originally described from Minnesota.

Hylemyia spiniventris sp. nov.

Male: Black, the halteres yellow; frontal vitta at narrowest part slightly wider than the lowest ocellus, antennæ about five-sixths as long as the face, the third joint only slightly longer than the second, longest hairs of arista almost twice as long as greatest diameter of the arista, proboscis slightly longer than height of head, very slender, the labella very small; mesonotum slightly polished, two median vittæ in front of the suture, the lateral margins in front of the wings, and the pleura, grayish pruinose, three pairs of postsutural dorsocentral bristles, sternopleurals 1 + 2; abdomen somewhat depressed, almost linear, subopaque, yellowish gray pruinose and with darker, olivaceous reflecting spots, hairs of venter becoming gradually longer toward its apex, the plate on the fifth ventral segment beset along each outer edge with about eight stout, rather short, inwardly curving spines, near the apex of the plate with a transverse pair of clusters of rather long bristles and hairs; front tibiæ each bearing two bristles below the middle of the posterior side and with three below middle of outer side; middle femora ciliate with bristles along the anterior-under and posterior-under sides, middle tibiæ each bearing two bristles on the outer-anterior side, three on the posterior-outer side, and two or three on the inner-posterior side, all on about the median third of the tibia; hind femora sparsely ciliate with long bristles on the anterior-under side and basal half of the posterior-under side, the apical half of the latter side ciliate with short bristles; hind tibiæ each bearing three bristles on the inner-anterior side, four on the outer-anterior side, five on the outer-posterior side, and about four short ones on the basal half of the posterior side; wings dark brown at base, the remainder pale brown, changing into grayish hyaline along the hind margin, costal vein distinctly spined to apex of first vein, costal spine slightly longer than the small crossvein, hind crossvein strongly sinuate, calypteres yellow.

Female: Front at narrowest point almost one and one-half times as wide as either eye, a pair of cruciate præocellar bristles; mesonotum opaque yellowish gray pruinose, marked with five indistinct brown

vittæ, abdomen elongate oval, fifth ventral segment destitute of spines and of long bristles; middle femora each bearing one long bristle on the basal fifth of the anterior-under side and with short ones on the remainder, with three long ones on the basal half of the posterior-under side and with short ones on the apical half; hind tibiæ destitute of bristles on the posterior side; wings grayish hyaline, yellow in the costal cell, the veins largely yellow, otherwise as in the male. Length, 6 to 8 mm. Two pairs, taken in coition, July 10.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5248, U. S. National Museum.

***Hylemyia simpla* sp. nov.**

Black, the halteres yellow, lower part of front yellowish brown; frontal orbits contiguous for a short distance, antennæ nearly as long as the face, the third joint only slightly longer than the second, longest hairs of arista scarcely longer than greatest diameter of the arista; proboscis short and rather slender, labella large; mesonotum sub-opaque, thinly dark grayish pruinose, the sides in front of wings light gray pruinose, three pairs of postsutural dorsocentral bristles, sternopleurals 1 + 2; abdomen depressed, nearly linear, dark gray pruinose, the first segment and a median vitta, black, hairs of venter slightly increasing in length toward its apex, hypopygium gray pruinose, destitute of long bristles on its apical portion; front tibiæ each bearing a bristle near the middle of its inner-posterior side, the bristle at apex of inner side sharp-pointed; middle femora on the anterior-under side and apical half of the posterior-under side ciliate with rather short bristles, on the basal half of the posterior-under side with very long ones; middle tibiæ each bearing one bristle on the inner-anterior side, one on the outer-anterior, one on the outer-posterior, and two on the inner-posterior side, all near the middle of the tibia; hind femora sparsely ciliate on the anterior-under side with rather long bristles, the posterior-under side with very short ones and near the apex with two or three rather long ones; hind tibiæ each bearing about six rather short bristles on the anterior-inner side, five on the anterior-outer side, three long ones on the outer side, the inner-posterior side ciliate with rather short ones on the basal three-fourths; wings hyaline, costal vein ciliate with very short spines, costal spine much longer than the small cross-vein, hind crossvein almost straight, calypteres yellowish; length, 5 mm. A male specimen, collected June 16.

Habitat.—Sitka, Alaska.

Type.—Cat. no. 5249, U. S. National Museum.

Hylemyia fabricii (Holmgren).

Aricia fabricii HOLMGREN, Ofversigt Vetan.-Akad. Forh., p. 101, 1872.

Kukak Bay, July 4; Popof Island, Alaska, July 9 to 11: Thirteen specimens of both sexes. Originally described from Greenland, and the U. S. National Museum contains a male specimen collected at Franconia, New Hampshire, by Mrs. Annie T. Slosson. The two long ribbon-like appendages of the hypopygium are visible only when the hypopygium is disengaged.

Pegomyia costalis Stein.

Pegomyia costalis STEIN, Berliner Ent. Zeitsch., p. 243, 1898.

Kukak Bay, July 4; Saldovia, Alaska, July 21: Two specimens. The type locality of this species is South Dakota.

Phorbia pretiosa (Walker).

Ariphlia pretiosa WALKER, List Dipt. Ins. British Museum, IV, p. 965, 1849.

Lowe Inlet, British Columbia, June 3; Sitka, June 16; Yakutat, June 21; Juneau, Alaska, July 25: Ten specimens. Originally described from the Albany River, British America.

Phorbia biciliata sp. nov.

Male: Black, the halteres yellow, lower part of front yellowish brown; frontal orbits unusually broad, contiguous for a considerable distance, only three or four pairs of very short front bristles, the ocellar bristles not longer than the adjoining hairs, antennæ three-fourths as long as the face, the third joint scarcely one and one-half times as long as the second, arista with a very short pubescence, proboscis rather slender, labella small; thorax, scutellum, and abdomen whitish pruinose, unmarked, abdomen depressed, very elongate oval, hairs of venter sparse and of nearly a uniform length, hypopygium unusually large, its two segments together much longer than the preceding segment, the two lamellæ of the fifth ventral segment very large, each bearing a row of about four short spines at the apex; front tibiæ each bearing a bristle near middle of the posterior side, the bristle at apex of inner side slender and sharp pointed; middle femora ciliate on the anterior-under and posterior-under sides with rather short bristles, middle tibiæ each bearing two bristles on the median third of the outer-posterior side and with one below middle of the inner-posterior side; hind femora ciliate on the anterior-under and posterior-under sides with bristles which are very short on the bases of the femora but gradually become rather long toward the apices; hind tibiæ ciliate with rather short bristles along the entire length of

the inner-anterior side, with five or six rather short bristles on the median two-fourths of the outer-anterior side, with three bristles which are successively longer, located at the first, second and third fifths of the outer side, the inner-posterior side ciliate with rather short, downwardly curving bristles on nearly its entire length; wings whitish hyaline, costal vein not spined, costal spine minute, hind crossvein slightly curved; calypteres white.

Female: Front at narrowest point slightly wider than either eye, ocellar and frontal bristles stout, a pair of præocellar bristles; front tibiæ destitute of bristles except at the apices, middle tibiæ each with one bristle below middle of outer-anterior side and one near middle of outer-posterior side; hind tibiæ each bearing about three bristles below middle of the inner-anterior side, two on median third of the outer-anterior side, and three on the outer-posterior side, otherwise nearly as in the male. Length, 3 mm. A specimen of each sex, collected June 10.

Habitat.—Berg Bay, Alaska.

Type.—Cat. no. 5250, U. S. National Museum.

***Hylephila silvestris* (Fallen).**

Musca silvestris FALLEN, Diptera Sueciæ, Muscidae, p. 70, 1820.

Aricia silvestris ZETTERSTEDT, Dipt. Scand., IV, p. 1527, 1845.

Anthomyza murina ZETTERSTEDT, Insecta Lappon., p. 682, 1840.

Aricia decrepita ZETTERSTEDT, Dipt. Scand., IV, p. 1454, 1845.

Kukak Bay, July 4; Popof Island, July 10; Kadiak, Alaska, July 20: Thirteen specimens, of both sexes. A European species, now for the first time reported from this Continent. The synonymy is according to Mr. P. Stein, who made an examination of Zetterstedt's types. This examination revealed the fact that in the cases of both *murina* and *decrepita*, Zetterstedt had mistaken the females for males.

***Chirosia glauca* sp. nov.**

Male: Black, the arista, except the basal fourth, and the halteres yellow, front at narrowest point almost as wide as either eye, a pair of small, cruciate præocellar bristles; antennæ nearly as long as the face, the third joint one and one-half times as long as the second, proboscis short and rather robust, palpi each bearing about four rather long bristles; body opaque, bluish gray pruinose, about four irregular pairs of præsutural acrostichal bristles, sternopleurals four, the lower two scarcely stouter than bristly hairs; abdomen depressed, elongate-ellipsoidal, hypopygium unusually large, nearly concealed beneath the abdomen; front tibiæ destitute of bristles, front pulvilli about one-half as long as the last tarsal joint, middle femora on under side sparsely

covered with rather short bristles, middle tibiæ each bearing a short bristle at two-thirds the length of the inner-anterior side and with one near middle of the outer-posterior side; hind femora ciliate with long bristles on the anterior-under side and with rather short ones on the basal half of the posterior-under side; hind tibiæ each bearing two short bristles on lower half of the inner-anterior side, three rather long ones on the outer-anterior and four on the outer-posterior sides; wings hyaline, costal vein ciliate with very short spines, costal spine slightly longer than the small crossvein; calypteres yellowish white; length 4.5 mm. A male specimen, collected June 8.

Habitat.—Farragut Bay, Alaska.

Type.—Cat. no. 5251, U. S. National Museum.

Chirosia thinobia (Thomson).

Scatophaga thinobia THOMSON, Kongliga Svenska Fregatt. Engenies Resa, p. 563, 1868.

Metlakahtla, June 4; Sitka, June 16; Saldovia, Alaska, July 21: Twelve specimens. Originally described from California.

Fucellia fucorum (Fallen).

Scatomyza fucorum FALLEN, Diptera Sueciæ, Scatomyzidæ, p. 5, 1819.

Fucellia fucorum SCHINER, Fauna Austriaca, Dipt., II, p. 15, 1864.

Sitka, June 16; Kukak Bay, July 4; Popof Island, July 8; Saldovia, Alaska, July 21: Twenty-eight specimens. A European species, first reported from this country about sixty years ago. It is a maritime species, reported as occurring from Greenland to Florida, and also in the Bering Islands.

Family SCATOPHAGIDÆ.

Scatophaga stercoraria (Linné).

Musca stercoraria LINNÉ, Fauna Suecica, p. 1861, 1761.

Scatophaga stercoraria SCHINER, Fauna Austriaca, Dipt., II, p. 18, 1864.

Kadiak, July 20; Juneau, Alaska, July 25: Ten specimens. Originally described from Europe, but at present almost cosmopolitan.

Scatophaga furcata (Say).

Pyroga furcata SAY, Journal Acad. Nat. Sciences Philadelphia, p. 98, 1823.

Scatophaga squalida MEIGEN, System. Besch. Eur. Zweif. Ins., v, p. 252, 1826.

Lowe Inlet, British Columbia, June 3; Metlakahtla, June 4; Sitka, June 16; Popof Island, July 11 to 14; Kadiak, Alaska, July 20: Nine specimens. This species was originally described from Missouri, but occurs over the greater portion of North America, ranging

from Greenland and Alaska to Georgia and Texas. It also occurs in Europe, and is one of the very few species described in this country before it was in Europe.

***Scatophaga intermedia* Walker.**

Scatophaga intermedia WALKER, List Dipt. Inst. Brit. Museum, IV, p. 980, 1849.

Muir Inlet, Alaska: A single specimen, collected June 11. The type locality is Nova Scotia. This species has also been recorded from New Hampshire and from Bering Islands; specimens are in the U. S. National Museum from Maine and Massachusetts.

***Scatophaga suilla* (Fabricius).**

Musca suilla FABRICIUS, Entomol. Syst., IV, p. 343, 1794.

Scatophaga spurca MEIGEN, System. Besch. Eur. Zweif. Ins., v, p. 250, 1826.

Sitka, June 16; Virgin Bay, June 26; Popof Island, July 10 to 13; Kadiak, Alaska, July 20: Twelve specimens. A European species not before recorded from this Continent. The U. S. National Museum contains specimens from New Hampshire, Canada, Washington, and Colorado.

***Scatophaga islandica* Becker.**

Scatophaga islandica BECKER, Berliner Ent. Zeitsch., p. 175, 1894.

Berg Bay, June 10; Yakutat, June 21; Popof Island, July 8 to 11; Kadiak, Alaska, July 20: Fifteen specimens. Originally described from Iceland and Labrador; it has also been reported from Bering Islands.

***Scatophaga frigida* sp. nov.**

Male and female: Black, the frontal vittæ yellowish red, cheeks and sides of face pale yellow, arista beyond the thickened basal part, palpi, and halteres yellow, tibiæ reddish yellow; third joint of antennæ twice as long as the second, arista short plumose on the antepenultimate fourth, the longest hairs one and one-half times as long as greatest diameter of arista; under side of palpi rather thickly beset with long yellowish white bristly hairs, the upper side with very short, the apices with long black bristles; body opaque, bluish gray pruinose, mesonotum marked with four blackish brown vittæ, its bristles and sparse, rather short hairs black; hairs of pleura long and abundant, those of the mesopleura chiefly black, of the sternopleura yellow, pteropleura bare; abdomen densely covered with long hairs, those on the dorsum chiefly black, on the venter yellow; femora, except upper side of the middle ones, rather densely covered with long black and yellow hairs,

tibiæ more sparsely covered with long black ones, hind and middle femora destitute of bristles, middle tibiæ each with two bristles on the anterior and two on the posterior side, hind tibiæ each with two or three on the anterior and two on the posterior side besides those at the apices; wings pale yellowish gray, changing to hyaline along the hind margin, crossveins not clouded with brown; calypteres white; length 8 to 10 mm. Two males and one female.

Habitat.—Kukak Bay, July 4; Popof Island, Alaska, July 9.

Type.—Cat. no. 5252, U. S. National Museum.

The U. S. National Museum also possesses a male specimen collected at Port Chester, Alaska, by Professor H. F. Wickham.

***Pogonota kincaidi* sp. nov.**

Male: Black, the front on lower part, in the middle almost reaching the ocellar triangle, face, cheeks, antennæ, palpi, halteres, anterior portion of front coxæ, and the legs, yellow; third joint of antennæ three times as long as the second, arista bare, vibrissæ and the bristles and hairs along lower side of head yellow, hairs on lower side of occiput extremely sparse; a velvet-black, H-shaped spot near center of front; body slightly polished, thinly grayish pruinose, hairs on dorsum of abdomen very short except a fringe of long black ones near hind margins of the fourth, fifth, and sixth segments; end lamellæ of hypopygium each slightly longer than wide, directed upward, the apex fringed with long pale yellow hairs which curve over the back; in front of the hypopygium is a pair of ventral processes which, near the middle of the anterior side, send forth an anteriorly directed, compressed, obliquely truncated lobe, beyond which the main process is strongly bent backward, but curves slightly forward toward its apex; front femora greatly swollen, considerably narrowed toward the apex of the under side, bearing many very short, black bristles on the under side of the thickened portion and on the inner side of the front tibiæ; wings whitish hyaline, a pale brownish vitta in the middle, most pronounced beyond the small crossvein, second basal cell slightly widening toward the apex, crossvein at base of discal cell almost perpendicular, hairs along the costa extremely short; calypteres whitish.

Female: Differs from the male as follows: Yellow of front extends above lowest ocellus, third joint of antennæ black, proboscis yellow, its apex brown, front coxæ wholly yellow, vibrissæ and two adjacent bristles black, no velvet-black mark near center of front, abdomen not pruinose, highly polished, destitute of long hairs and of ventral processes, depressed at base, strongly compressed at apex, ovipositor

nearly linear, about three times as long as greatest width, tapering to a point at apex, front femora only slightly thickened, no black bristles on their under sides nor on inner sides of the front tibiae; wings hyaline, unmarked. Length, 5 mm. A specimen of each sex, collected July 11.

Habitat.—Popof Island, Alaska.

Type.—Cat. no. 5253, U. S. National Museum.

This genus has not heretofore been recorded from this Continent. The present species would fall in the genus *Okenia* as defined by Becker (Berliner Ent. Zeitsch., 1894, p. 141), but as that name is preoccupied in the Mollusca, the species previously referred to it may be transferred to *Pogonota*, with which they agree except in a few trilling particulars.

***Cordylura præusta* Loew.**

Cordylura præusta LOEW, Berliner Ent. Zeitsch., p. 96, 1864.

Berg Bay, Alaska: a single specimen, collected June 10. Originally described from Canada, and has been recorded from New Jersey. The U. S. National Museum possesses a specimen collected by Mrs. A. T. Slosson at Franconia, New Hampshire.

***Cordylura vittipes* Loew.**

Cordylura vittipes LOEW, Berliner Ent. Zeitsch., p. 272, 1872.

Metlakahtla, June 4; Berg Bay, June 10; Sitka, June 16; Yakutat, June 21; Popof Island, Alaska, July 8: Seven specimens. Originally described from Sitka.

***Cordylura variabilis* Loew.**

Cordylura variabilis LOEW, Zeitschrift Ges. Naturw., p. 326, 1876.

Metlakahtla, June 4; Berg Bay, June 10; Virgin Bay, June 20; Kukak Bay, July 4; Popof Island, Alaska, July 11: Seven specimens. Originally described from Massachusetts. Specimens are in the U. S. National Museum collection, ranging from New Hampshire to North Carolina, and westward to Texas and Colorado.

***Orthochæta pilosa* (Zetterstedt).**

Cordylura pilosa ZETTERSTEDT, Insecta Lappon., p. 732, 1840.

Orthochæta pilosa BECKER, Berliner Ent. Zeitsch., p. 101, 1894.

Metlakahtla, Alaska: A female specimen, collected June 4. This European species has not heretofore been reported from this country.

***Hexamitocera cornuta* (Walker).**

Lissa cornuta WALKER, List Dipt. Ins. Brit. Museum, IV, p. 1047, 1849.

Yakutat, Alaska: A male specimen, collected June 21. Originally described from the Albany River, British America.

Family **HELOMYZIDÆ.****Helomyza zetterstedtii** Loew.

Helomyza zetterstedtii LOEW, Zeitschrift Entom. Berlin, p. 37, 1859.

Yakutat, June 21; Popof Island, Alaska, July 8: Two specimens. This is a European species, first reported from this country about twenty-two years ago. Specimens are in the U. S. National Museum from the White Mountains, New Hampshire, and Ungava Bay, British America.

Leria leucostoma (Loew).

Blépharoptera leucostoma LOEW, Berliner Ent. Zeitsch., p. 28, 1863.

Popof Island, July 10; Kadiak, July 20; Saldovia, Alaska, July 21: Three specimens. Originally described from Alaska. Specimens are in the U. S. National Museum from the White Mountains, New Hampshire.

Leria fraterna (Loew).

Scoliocentra fraterna LOEW, Berliner Ent. Zeitsch., p. 27, 1863.

Orca, Alaska: A single specimen, collected June 21. This species was also originally described from Alaska. It has been reported from Mt. Washington, New Hampshire, and the U. S. National Museum contains specimens from Ungava Bay, British America, and Laggan, British Columbia.

Family **SCIOMYZIDÆ.****Tetanocera plumosa** Loew.

Tetanocera plumosa LOEW, Entom. Zeitung Stettin, p. 201, 1847. Monographs Dipt. N. Am., 1, p. 121, 1862.

Virgin Bay, June 26; Kukak Bay, July 4; Popof Island, July 9 to 16; Kadiak, Alaska, July 20: Eleven specimens. Originally described from Alaska, and also recorded from Connecticut and New Jersey. Specimens in the U. S. National Museum indicate that this species occurs from Maine and Pennsylvania, westward to California and Alaska.

Neuroctena anilis (Fallen).

Dryomyza anilis FALLEN, Diptera Sueciæ, Sciomyzidæ, p. 16, 1820.

Dryomyza pallida DAY, Canadian Ent., p. 89, 1881.

Yakutat, June 21; Virgin Bay, June 26; Kukak Bay, July 4; Kadiak, Alaska, July 20: Six specimens. A European species, first reported from this country about thirty-eight years ago. It has been recorded from Connecticut and New Jersey. Specimens in the U. S.

National Museum show that it ranges northward to New Hampshire, and also occurs in Washington.

***Cedoparea glauca* sp. nov.**

Black, the halteres yellow; head bluish gray pruinose, the entire front brownish gray pruinose, only two vertical bristles (the anterior) present, ocellar and postocellar bristles present, two pairs of fronto-orbitals; face in profile strongly concave, the clypeus unusually large and projecting the length of the third antennal joint beyond the anterior edge of the oral margin, cheeks posteriorly two-thirds as broad as the eye-height, third joint of antennæ orbicular; body bluish gray pruinose, mesonotum largely brownish pruinose, five pairs of dorso-central bristles, scutellum bearing three pairs of marginal bristles, pleura and legs destitute of bristles except at apices of tibiæ; wings grayish hyaline, stigma and base of costal cell yellowish gray, apex of first vein opposite the hind crossvein; length 6 to 7 mm. Four males and three females.

Habitat.—Metlakahtla, June 4; Farragut Bay, Alaska, June 5.

Type.—Cat. no. 5254, U. S. National Museum.

Cedoparea was founded by Dr. Loew in the *Zeitschrift für Entomologie zu Breslau* for 1859, page 10, and has for its type species the *Heteromyza buccata* of Fallen. Dr. Loew draws attention to the fact that in his original definition of the genus *Heteromyza*, Fallen stated that the vibrissæ are present, but as a matter of fact, this is true of only one (*oculata*) of the two species which he places in it; *oculata* therefore must be considered the type species of the genus *Heteromyza*. About three years previous to the publication of Dr. Loew's article, Rondani had selected *buccata* as the type of a new genus, to which he applied the name *Heterostoma*, but upon discovering that this name had been previously used for another genus, he changed it the following year to *Heterocheila*. But this name was, in his opinion, too near to the previously employed generic term, *Heterocheilus*, and, accordingly, eleven years later he again changed it to *Exocheila*. As the name proposed by Dr. Loew had been published about nine years previously, it will, of course, take precedence over the name bestowed by Rondani.

***Sciomyza glabricula* Fallen.**

Sciomyza glabricula FALLÉN, *Diptera Suecicæ, Sciomyz.*, p. 15, 1820.—SCHINER, *Fauna Austriaca, Dipt.*, II, p. 44, 1864.

Popof Island, Alaska: A single specimen, collected July 13. This is a European species, not heretofore reported from this Continent.

Family PSILIDÆ.***Psila levis* Loew.**

Psila levis LOEW, Berliner Ent. Zeitsch., p. 40, 1869.

Sitka, June 16; Yakutat, June 21; Virgin Bay, June 26; Kukak Bay, Alaska, July 4: Seventeen specimens. Originally described from New Hampshire.

Family ORTALIDÆ***Melieria canus* (Loew).**

Ortalis canus LOEW, Berliner Ent. Zeitsch., p. 374, 1858.

Ceroxys canus LOEW, Monographs Dipt. N. Am., III, p. 128, 1873.

Fox Point, Alaska: A single specimen, collected July 28. A European species, first reported from this country about twenty-seven years ago. It has been recorded from Alaska and Nebraska, and the U. S. National Museum contains specimens from Colorado.

Family TRYPETIDÆ.***Tephritis murina* Doane.**

Tephritis murina DOANE, Journal New York Ent. Soc., p. 189, 1899.

Popof Island, Alaska: Seven specimens, collected July 9 to 14. The type locality of this species is Washington.

Family LONCHÆIDÆ.***Palloptera jucunda* Loew.**

Palloptera jucunda LOEW, Berliner Ent. Zeitsch., p. 29, 1863.

Kukak Bay, July 4; Popof Island, Alaska, July 8 to 14: Eleven specimens. Originally described from Alaska. The U. S. National Museum contains specimens collected in Idaho and Colorado.

***Lonchæa albitarsis* Zetterstedt.**

Lonchæa albitarsis ZETTERSTEDT, Insecta Lappon., p. 754, 1840. Dipt. Scand., VI, p. 2351, 1847.

Sitka, Alaska: Two specimens, collected June 16. A European species not before reported from this Continent.

***Lonchæa hyalinipennis* Zetterstedt.**

Lonchæa hyalinipennis ZETTERSTEDT, Dipt. Scand., VI, p. 2350, 1847.

Yakutat, June 21; Virgin Bay, Alaska, June 26: Two specimens. This is also a European species, not before recorded from this Continent.

***Lonchæa deutschii* Zetterstedt.**

Lonchæa deutschii ZETTERSTEDT, Insecta Lappon., p. 753, 1840. Dipt. Scand., VI, p. 2348, 1847.

Sitka, Alaska: Two specimens, collected June 16. This species falls into the same category as the two preceding.

Family SAPROMYZIDÆ.

Sapromyza brachysoma Coquillett.

Sapromyza brachysoma COQUILLETT, Canadian Entom., p. 278, 1898.

Muir Inlet, June 12; Sitka, Alaska, June 16: Twenty-seven specimens. Originally described from New Hampshire.

Sapromyza lupulina (Fabricius).

Musca lupulina FABRICIUS, Mantissa Insect., II, p. 344, 1787.

Sapromyza lupulina BECKER, Berliner Ent. Zeitsch., p. 213, 1895.

Juneau, Alaska: Two specimens, collected July 25. A European species, first recorded as occurring in this country by Walker about fifty-one years ago. It has been reported as occurring along the eastern part of this country from Nova Scotia to New Jersey. Specimens in the U. S. National Museum indicate that it ranges as far southward as North Carolina, and westward to Kansas and Colorado.

Lauxania cylindricornis (Fabricius).

Musca cylindricornis FABRICIUS, Entom. System., IV, p. 332, 1792.

Lauxania cylindricornis SCHINER, Fauna Austriaca, Dipt., II, p. 95, 1864.

Low Inlet, British Columbia, June 3; Muir Inlet, June 11; Sitka, June 16; Kukak Bay, July 4; Popof Island, Alaska, July 10 and 11: Eight specimens. This is also a European species, first reported from this country by the same writer and at the same time as the preceding species. It has been recorded as occurring along the Atlantic seaboard from Nova Scotia to Georgia.

Family PHYCODROMIDÆ.

Cœlopa frigida (Fallen).

Copromyza frigida FALLEN, Diptera Suecicæ, Hydromyz., p. 6, 1820.

Cœlopa frigida ZETTERSTEDT, Dipt. Scand., VI, p. 2472, 1847.

Kadiak, Alaska: A single specimen, collected July 20. A European species, reported as occurring in this country by Osten Sacken about twenty-two years ago. It has also been recorded from Bering Islands.

Cœlopa nitidula Zetterstedt.

Cœlopa nitidula ZETTERSTEDT, Dipt. Scand., VI, p. 2473, 1847.

Kadiak, Alaska: A single specimen, collected July 20. This is also a European species recorded from this country with the preceding species.

Family SEPSIDÆ.***Sepsis referens* Walker.**

Sepsis referens WALKER, List Dipt. Ins. Brit. Museum, iv, p. 999, 1849.

Lowe Inlet, British Columbia: A single specimen, collected June 3. Originally described from North America, without reference to any more definite locality.

***Sepsis flavimana* Meigen.**

Sepsis flavimana MEIGEN, Syst. Besch. Eur. Zweif. Ins., v, p. 288, 1826.—SCHINER, Fauna Austriaca, Dipt., II, p. 180, 1864.

Saldovia, July 21; Juneau, Alaska, July 25: Two specimens. A European species, not heretofore reported from this Continent.

Family PIOPHILIDÆ.***Piophila casei* (Linné).**

Musca casei LINNÉ, Fauna Suecica, p. 1850, 1761.

Piophila casei SCHINER, Fauna Austriaca, Dipt., II, p. 186, 1864.

Juneau, Alaska: Two specimens, collected July 25. A European species, first reported from this country by Dr. Loew about thirty-six years ago.

***Prochyliza xanthostoma* Walker.**

Prochyliza xanthostoma WALKER, List Dipt. Ins. Brit. Museum, iv, p. 1045, 1849.

Saldovia, Alaska: A single specimen, collected July 21. Originally described from Albany River, British America, and has been recorded from New Jersey and the District of Columbia. Specimens in the U. S. National Museum indicate that it ranges southward to Georgia, and westward to Texas and Kansas.

Family EPHYDRIDÆ.***Hydrellia scapularis* Loew.**

Hydrellia scapularis LOEW, Monog. Dipt. N. Am., I, p. 153, 1862.

Lowe Inlet, British Columbia; Yakutat, June 21; Popof Island, Alaska, July 8 to 10: Six specimens. Originally described from the United States without any more definite locality being given. It has been recorded from New Jersey, and specimens in the U. S. National Museum indicate that it ranges westward through Illinois to California.

***Pelomyia occidentalis* Williston.**

Pelomyia occidentalis WILLISTON, N. Amer. Fauna, no. 7, p. 258, 1893.

Saldovia, Alaska: Five specimens, collected July 21. Originally described from Monterey, Calif.

***Parydra paullula* Loew.**

Parydra paullula LOEW, Monog. Dipt. N. Am., 1, p. 167, 1862.

Popof Island, Alaska: A single specimen, collected July 10. No locality was mentioned in the original description, but the type specimen was evidently collected in some part of the United States.

***Scatella setosa* sp. nov.**

Black, the halteres yellow; head and body opaque, densely bluish gray pruinose, cheeks at narrowest part about one-sixth as wide as the eye-height, a stout bristle near junction of each with the occiput and two on each side of the face; mesonotum bearing three pairs of dorsocentral bristles, the anterior pair in front of the suture, no bristles nor hairs between the two rows of dorsocentrals behind the suture, in front of the suture with a strong pair of acrostichal bristles, and in front of these are three or four pairs of shorter bristles; scutellum bearing a short lateral and a very long subapical pair of bristles; wings grayish brown, marked with five rather small whitish spots, one in the submarginal cell above the hind crossvein, one near the base and another beyond middle of the first posterior cell, finally one on either side of the hind crossvein; length 2.5 mm. A single specimen, collected July 21.

Habitat.—Saldovia, Alaska.

Type.—Cat. no. 5255, U. S. National Museum.

***Scatella stagnalis* (Fallen).**

Ephydra stagnalis FALLEN, Dipt. Sueciae, Hydromyzidae, p. 5, 1823.

Scatella stagnalis SCHINER, Fauna Austriaca, Dipt., II, p. 266, 1864.

Yakutat, Alaska: A single specimen, collected June 21. A European species, reported as occurring in Greenland about fifty-five years ago. It has also been reported from New Jersey, and the specimens in the U. S. National Museum indicate that it occurs as far southward as Georgia and westward to Arizona.

Family DROSOPHILIDÆ.***Scaptomyza flaveola* (Meigen).**

Drosophila flaveola MEIGEN, Sys. Besch. Eur. Zweif. Ins., VI, p. 66, 1830.

—SCHINER, Fauna Austriaca, Dipt., II, p. 279, 1864.

Sitka, Alaska: A single specimen, collected June 16. This is a European species, first reported from this country by the writer in 1895. It was recorded from the District of Columbia, and the National Museum also contains specimens from Connecticut and New Hampshire. The characters heretofore used for separating *Drosophila* from *Scap-*

tomyza have been rather vague and obscure, and in consequence the last-named genus has not been generally adopted. A recent study of this group has disclosed a well-marked difference in the disposition of the short, bristly hairs of the mesonotum; in *Scaptomyza* these hairs are sparse and are arranged in two or four nearly regular rows, while in *Drosophila* as restricted they are numerous and not arranged in two or four rows. This difference, taken in connection with the widely divergent habits of the larvæ—leaf-miners in *Scaptomyza*, scavengers in *Drosophila*—will justify the separation of these two forms into two distinct genera.

Family OSCINIDÆ.

Oscinis carbonaria Loew.

Oscinis carbonaria LOEW, Berliner Ent. Zeitsch., p. 42, 1869.

Metlakahtla, June 4; Popof Island, July 8 to 12; Juneau, Alaska, July 26: Seven specimens. Originally described from the District of Columbia, and has been reported to occur from New Jersey to Nebraska, and northward to Canada.

Chlorops sahlbergi Loew.

Chlorops sahlbergi LOEW, Berliner Ent. Zeitsch., p. 51, 1863.

Muir Inlet, June 12; Virgin Bay, June 26; Saldovia, Alaska, July 21: Five specimens. Originally described from Alaska.

Chlorops producta Loew.

Chlorops producta LOEW, Berliner Ent. Zeitsch., p. 52, 1863.

Sitka, Alaska: A single specimen, collected June 16. The type specimen also came from Sitka.

Chlorops scabra Coquillett.

Chlorops scabra COQUILLETT, Journal New York Ent. Soc., p. 46, 1898.

Saldovia, Alaska: A single specimen, collected July 21. Originally described from Oswego, N. Y.

Family AGROMYZIDÆ.

Rhincæssa parvula Loew.

Rhincæssa parvula LOEW, Berliner Ent. Zeitsch., p. 45, 1869.

Kukak Bay, July 4; Saldovia, Alaska, July 21: Two specimens. Originally described from Rhode Island.

Agromyza neptis Loew.

Agromyza neptis LOEW, Berliner Ent. Zeitsch., p. 50, 1869.

Juneau, Alaska: Two specimens, collected July 25. Originally de-

scribed from the District of Columbia, and has been recorded as occurring from Massachusetts to Florida and Texas, and also from Porto Rico.

***Agromyza lacteipennis* Fallen.**

Agromyza lacteipennis FALLEN, Diptera Sueciæ, Agromyzidæ, p. 4, 1823.—SCHINER, Fauna Austriaca, Dipt., II, p. 300, 1864.

Saldovia, Alaska: A single specimen, collected July 21. A European species, not before reported from this Continent.

***Phytomyza flavicornis* Fallen.**

Phytomyza flavicornis FALLEN, Diptera Sueciæ, Phytomyzidæ, p. 4, 1823.—SCHINER, Fauna Austriaca, Dipt., II, p. 315, 1864.

Yakutat, Alaska: A single specimen, collected June 21. This is a European species, not before reported from this Continent. The U. S. National Museum contains specimens from Ohio and Illinois.

***Phytomyza illicicola* Loew.**

Phytomyza illicicola LOEW, Berliner Ent. Zeitsch., p. 290, 1872.

Phytomyza ilicis LOEW, Berliner Ent. Zeitsch., p. 54, 1863. (Nec Curtis.)

Muir Inlet, June 12; Orca, Alaska, June 27: Two specimens. Originally described from the District of Columbia. The U. S. National Museum contains specimens from Massachusetts, California, and Oregon.

***Napomyza lateralis* (Fallen).**

Phytomyza lateralis FALLEN, Diptera Sueciæ, Phytomyzidæ, p. 3, 1823.—SCHINER, Fauna Austriaca, Dipt., II, p. 314, 1864.

Popof Island, Alaska: A single specimen, collected July 10. This is a European species, not before recorded from this Continent. The U. S. National Museum contains specimens collected in New Hampshire, Illinois, and Missouri.

Family BORBORIDÆ.

***Borborus annulus* Walker.**

Borborus annulus WALKER, List Dipt. Ins. Brit. Museum, IV, p. 1129, 1849.

Popof Island, Alaska: A single specimen, collected July 10. Originally described from Nelson River and Albany River, British America.

***Aptilotus politus* (Williston).**

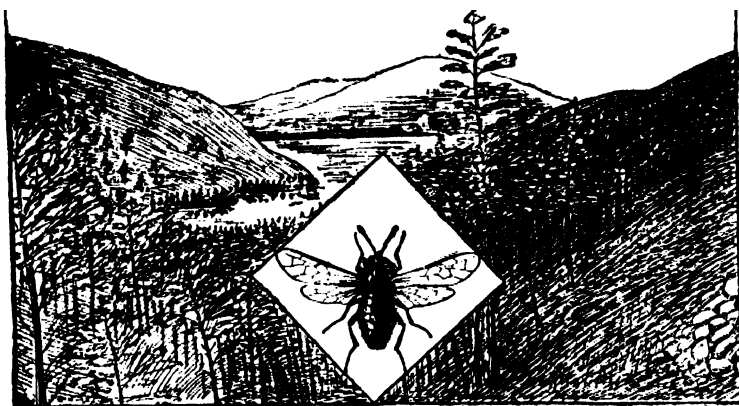
Apterina politus WILLISTON, North Amer. Fauna, no. 7, p. 259, 1893.

Farragut Bay, Alaska: Two specimens, collected June 5. The type locality of this species is the Panamint Mountains, California.

THE TENTHREDINOIDEA OF
THE EXPEDITION

The following account of the Tenthredinoidea of the Expedition, by Trevor Kincaid, Professor of Biology in the University of Washington at Seattle, was originally published in the Proceedings of the Washington Academy of Sciences, vol. II, pp. 341-346, Nov. 24, 1900. It is here reprinted from the same electrotpe plates, so that it may be quoted exactly as if it were the original. The original pagination has been preserved and transferred to the inner or hinge side of the page, where it is enclosed in brackets, thus [343]; while the consecutive pagination of the present volume has been added in the usual place. The present headpiece and title have been substituted for the running heading of the Academy's Proceedings and the original title, which was: *Papers from the Harriman Alaska Expedition. VII. Entomological Results (1): The Tenthredinoidea*. No other alterations have been made.

EDITOR.



THE TENTHREDINOIDEA OF THE EXPEDITION

BY TREVOR KINCAID

THE writer being the only member of the Harriman Expedition especially interested in entomology, the duty devolved upon him of securing as large a representation as possible of the insect fauna of the regions visited. Fortunately the conditions were more favorable than is usually the case in the exploration of these northern latitudes. Every facility that experience and forethought could suggest had been provided, and the work was further facilitated by the careful organization of the party. Moreover the labors of the collector were only slightly interfered with by unpropitious weather, which is the more remarkable in a region notorious for its excessive humidity and long continued rains.

Recognizing the fact that almost nothing was known concerning the insect fauna of Alaska outside of the orders Coleoptera and Lepidoptera, a special effort was made to secure representatives of groups which, from the small size or obscure habits of their members, had not hitherto been collected in the Territory. This endeavor was so successful that the resulting collection contains by far the most extensive general series of

insects ever brought from the region. It will enable entomologists to form an idea of the rich field that awaits them in this vast northern possession of the United States.

The collection embraces in all more than 5,000 pinned insects, together with a considerable series of Arachnida, Myriopoda, and larval forms preserved in alcohol. The exact number of species represented cannot be stated at the date of writing, as not all the reports are completed, but the total will not fall far short of 900, distributed in the several groups as follows: Arachnida, 53; Myriopoda, 10; Thysanura, 10; Neuropteroids, 32; Odonata, 10; Aphididae, 4; Psyllidae, 3; Jassidae, 10; Heteroptera, 14; Orthoptera, 1; Coleoptera, 159; Diptera, 276; Rhophalocera, 12; Heterocera, 60; Apoidea, 12; Sphegoidea, 6; Vespoidea, 3; Formicoidea, 4; Parasitic Hymenoptera, 150; Tenthredinoidea, 56. Of the above, upwards of 200 species are new to science, and of the remainder a large number are either new to the North American Continent or not yet recorded from Alaska.

The collections were made between the first of June and the first of August, 1899. Except a small number of specimens obtained in British Columbia, all of the material was collected in Alaska. Most of the stops were made in going northward and westward, a few on the return journey. Collections were made at the following localities, which for convenience are arranged in geographic sequence, with date of visit: Fox Point, July 26-28; Metlakahtla, June 4; Farragut Bay, June 5; Taku Inlet, June 6; Muir Inlet, June 9-12; Juneau, July 25; Sitka, June 14-16; Yakutat Bay, June 18-22; Virgin Bay, Prince William Sound, June 25-26; Orca, Prince William Sound, June 27; Saldovia, Kenai Peninsula, July 21; Kukak Bay, Alaska Peninsula, June 29-July 5; Kadiak, July 20; Popof Island, July 7-17.

Upon the return of the Expedition the collections were properly labeled and assorted into groups, after which they were transmitted to Dr. L. O. Howard, Chief of the Division of Entomology of the U. S. Department of Agriculture and Curator of Insects U. S. National Museum, for distribution to specialists for study and report. It is expected that these reports, twenty

or more in number, will appear in the Proceedings of the Washington Academy of Sciences, and later in the final report of the Harriman Expedition. The systematists who have the various groups in hand are as follows:

Arachnida	Nathan Banks.	Diptera	D. W. Coquillett.
Myriopoda	O. F. Cook.	Lepidoptera	H. G. Dyar.
Thysanura	Justus W. Folsom.	Apoidea	Wm. H. Ashmead.
Neuropteroids	Nathan Banks.	Sphegoidea and	
Odonata	R. P. Currie.	Vespoidea	Trevor Kincaid.
Aphididæ	Th. Pergande.	Formicoidea	Th. Pergande.
Psyllidæ	E. A. Schwarz.	Parasitic Hymenop-	
Jassidæ	—	tera	Wm. H. Ashmead.
Heteroptera	O. Heidemann.	Tenthredinoidea	Trevor Kincaid.
Orthoptera	A. N. Caudell.	Life-histories of	
Coleoptera	E. A. Schwarz.	Coleoptera	Trevor Kincaid.

The collection of sawflies upon which the following report is based was gathered by the writer while with the Harriman Expedition in Alaska, and consists of about 350 specimens, representing 56 species, of which a considerable number are believed to be new to science.

Very little is known concerning the sawflies of Alaska, only seven species having been recorded from this great Territory. In 1822 Eschscholtz¹ described four species from Unalaska; in 1872 Norton² recorded a variety of *Dolerus similis* from the Yukon; in 1880 Cresson³ described a form of *Trichiosoma triangulum* from the Aleutian Islands; in 1894 Harrington⁴ described a *Tenthredo* from Fort Wrangell, and in 1896 Marlatt⁵ recorded a species of *Pachynematus* from the same locality.

It is clear that hardly a beginning has been made towards bringing to light the insect fauna of this vast and peculiar region, except perhaps in the Coleoptera, which were carefully collected by the Russians. Among the sawflies we may expect an especially rich series of Nematidæ owing to the immense abundance, both in species and individuals, of various kinds of willows.

¹Eschscholtz, Entomogr., 1822.

²Norton, Trans. Amer. Ent. Soc., iv, p. 82, 1872.

³Cresson, Trans. Amer. Ent. Soc., viii, p. 1, 1880.

⁴Harrington, Can. Ent., xxvi, p. 194, 1894.

⁵Marlatt, Monog. Nemet., p. 109, 1896.

In presenting this paper, the writer wishes to thank the authorities of the U. S. National Museum, especially Dr. L. O. Howard and Mr. William H. Ashmead, for many kindnesses, including access to the library and collection and other facilities for research. Thanks are due also to Dr. Henry Skinner and Mr. William J. Fox, of the American Entomological Society for the opportunity of studying the Hymenoptera in the collection at Philadelphia.

Family **LYDIDÆ**.

ITYCORSIA MARGINIVENTRIS.

Itycorsia marginiventris CRESSON, Trans. Amer. Ent. Soc., VIII, p. 29, 1880.
(Lyda.)

A specimen of *Itycorsia* taken at Sitka, Alaska, June 15, agrees with the type of this species except in a few trifling details of coloration. In the Sitka example the spot on the pleura is much more extensive, the bands on the venter of the abdomen are reduced to mere spots at the sides, the femora are black with a reddish spot at apex, and the tibiae and tarsi are rufous. This species was originally described from New York.

CEPHALEIA NIGROPECTUS.

Cepheleia nigropectus CRESSON, Trans. Amer. Ent. Soc., VIII, p. 32, 1880.
(Lyda.)

One female taken at Sitka, Alaska, June 15. This species was originally described from Nevada.

CEPHALEIA sp. — (?).

A representative of this genus was taken by Mr. Charles Palache on Kadiak Island, but is in too poor condition for determination.

BACTROCEROS SITKENSIS sp. nov.

Female: Length 10 mm; antennæ of moderate length, about twenty-five jointed, slender, tapering, third joint longer by one third than the fourth. Color black; flagellum of antennæ honey yellow; abdomen except basal plates sanguineous; anterior margin of clypeus, two closely united spots just anterior to the front ocellus, fine wavy line partially surrounding the anterior ocellus, spot extending inwards from the middle of eye, small spot between this last spot and the base of the antennæ, large spot extending from the inner posterior margin of

the eye to the temples, where it is considerably dilated, minute spot in the lateral grooves of the occiput, extreme angles of pronotum, tegulæ, scutellum, post-scutellum, yellow; femora white; tibiæ and tarsi yellow.

Two females, Sitka, June 16, 1899.

Type no. 5280, U. S. National Museum.

Family SELANDRIIDÆ.

FENUSA ALASKANA sp. nov.

Male: Length 4 mm.; smooth, shining; head nearly as broad as thorax, polished, impunctate; a deep elongate pit immediately behind the base of each antenna; antennal fovea large, round, deeply impressed, sharply limited; antennæ short, third joint almost as long as fourth and fifth combined; clypeus squarely truncate; posterior tarsi as long as the corresponding tibiæ; stigma broad at base, tapering to apex. Color black; tegulæ and knees white; antennæ beneath, spot on apex of femora above, line outwardly on all tibiæ and apices of tarsal joints, reddish yellow; wings hyaline, nervures and stigma brown.

One female, Kukak Bay, July 3, 1899.

Type no. 5281, U. S. National Museum.

Allied to *Fenusa curta* Norton, from which it differs in the coloration of the antennæ, and in the much greater length of the posterior tarsi.

ERYTHRASPIDES ASHMEADII sp. nov.

Female: Length 6 mm.; clypeus truncate, densely pubescent; antennæ shorter than the head and thorax, stout, third joint nearly as long as fourth and fifth combined, the joints beyond the third enlarged at apex; a stout ridge extending backwards from the base of each antenna with a deep pit close to its posterior termination; antennal fovea broad, shallow, roughened, indistinctly defined; scutellum and base of metathorax finely granulate; stigma broad, rounded below, acuminate at apex; sheath elongate, stout, rather sharp, rounding above and below. Color black, shining; apices of femora and tibiæ, except tips, white; outer margin of tegulæ testaceous; wings hyaline, nervures black, stigma dark brown.

Male: Length 5.5 mm.; resembles female in general structural characters, but the ridges behind the antennæ are much reduced and the pits found in the female close to their posterior terminations are obsolete; antennæ stouter; colored as in the female.

Two females and one male, Sitka, Alaska, June 16, 1899.

Type no. 5282, U. S. National Museum.

Named in honor of Wm. H. Ashmead, of the U. S. National Museum.

MONOPHIADNUS INSULARIS sp. nov.

Male: Length 6 mm.; head broad, constricted immediately behind the compound eyes; clypeus slightly emarginate; antennæ robust, of moderate length, slightly compressed at base, third joint equal in length to fourth; antennal fovea large and deep, bounded on each side by a strong ridge; a deep excavation behind each antenna; a short ridge extending forward from each of the posterior ocelli; stigma rounded beneath, tapering at apex. Color black, shining; apices of anterior and medial femora, and a spot anteriorly on front tibiæ, testaceous; wings slightly smoky, nervures black.

One male, Metlakahla, Alaska, June 4, 1899.

Type no. 5283, U. S. National Museum.

PARASELANDRIA RUFIGASTRA sp. nov.

Female: Length 5.5 mm.; clypeus emarginate; antennæ elongate, slender, tapering, third joint shorter than fourth; frontal area of head with a heart-shaped depression surrounded by a clearly raised ridge; lateral portions of the head finely roughened; frontal ridge sharp and unbroken; antennal fovea broad, rather deep, surrounded by a distinct wall; region behind each antenna with a deep irregular pit; middle lobe of mesothorax sharply keeled posteriorly; stigma narrow, tapering from near base to apex. Color black; clypeus, labrum, angles of prothorax, tegulæ, and legs except base of coxæ, testaceous; tips of posterior tibiæ and all the tarsi more or less infuscated; abdomen except basal plates and first segment rufous, with some black infuscations towards tip; wings hyaline, nervures brown.

One female, Kukak Bay, July 4.

Type no. 5284, U. S. National Museum.

PCEILOSTOMIDEA MACULATA.

Pceilostomidea maculata NORTON, Proc. Bost. Soc. Nat. Hist., VIII, p. 157, 1861. (Emphytus.)

Six females and eighteen males taken at Sitka, June 15; Yakutat, Alaska, June 20; Virgin Bay, Alaska, June 25. This species is widely distributed throughout the United States and Canada, and is recorded by Mr. Harrington from Vancouver Island.

Family NEMATIDÆ.

PACHYNEMATUS OCREATUS.

Pachynematus ocreatus HARRINGTON, Can. Ent., XXI, p. 25, 1889. (Nemat.)

Three females taken at Sitka, Alaska. This species was originally described from Ottawa, Ontario.

PACHYNEMATUS AFFINIS.

Pachynematus affinis MARLATT, Revision of the Nematinae of North America, p. 97, 1896.

One female and one male, Popof Island, Alaska, July 13, 1899. The only observed differences between the type of *affinis* and the Alaska form are in coloration. In the latter a small black spot is present on the pectus, and the antennæ are inclined to be testaceous towards tip. *P. affinis* was originally described from Montana.

PACHYNEMATUS ORONUS sp. nov.

Female: Length 6 to 7 mm.; clypeus narrowly and deeply notched, lobes triangular; frontal crest broad and strong, extending laterally to orbits, notched in the middle; sides of ocellar basin broad and rounded; antennal fovea oval, deep, continuous posteriorly with the frontal depression; antennæ longer than head and thorax, slender, third joint slightly shorter than fourth; venation normal except that the third cubital cell is three times as long as wide at base, the sides almost parallel; stigma rather narrow, gently rounded below; sheath narrow, rounding above and below to a rather narrowly rounded tip; cerci extremely long, somewhat clavate at apex; inner tooth of claw minute. Color for the most part reddish yellow; ocelli, two basal joints of antennæ, spot on anterior lobes of mesonotum sometimes absent, variable spot on pectus, basal plates, tergum of abdomen except three or four apical segments, black; venter more or less infuscated basally; wings hyaline, nervures brown, stigma and costa yellowish.

Three females, Yakutat Bay, Alaska, June 21, 1899.

Type no. 5285, U. S. National Museum.

This species is allied to the preceding form, but differs in the more deeply emarginate clypeus and in the absence of black markings on the mesonotum.

PACHYNEMATUS PLEURICUS.

Pachynematus pleuricus NORTON, Trans. Amer. Entom. Soc., 1, p. 208, 1867 ♀. (Nematus.)

Male: Length 6 mm.; head sculptured as in the female; antennæ as long as the entire body, slightly flattened at base, tapering; second recurrent nervure nearly interstitial with second cubital; procidentia broad at base, produced, squarely truncate at apex. Color black; procidentia, hypopygium and legs reddish yellow; coxæ and base of femora black.

One female and two males, Kukak Bay, July 1.

Type ♂, no. 5286, U. S. National Museum.

This species is recorded from Colorado and Idaho, but the male had not been described.

PACHYNEMATUS ORARIUS sp. nov.

Female: Length 6.5 mm.; short, robust; head narrowed back of compound eyes; clypeus very shallowly emarginate; lateral walls of ocellar basin clearly and sharply raised; frontal crest strongly raised but deeply broken into the deep narrow antennal fovea, which is well defined laterally and posteriorly; head rather coarsely and closely punctured except within the ocellar basin, where the punctures are sparse; antennæ of moderate length, tapering to apex, joints three to five subequal; intercostal close to basal; venation normal; stigma narrow, broadest at base, tapering to apex; sheath robust, rounded at tip; cerci slender. Color black; labrum, angles of pronotum, tegulæ, legs, except base of coxæ, testaceous; wings hyaline, nervures brown; the costa and stigma testaceous.

Two females, Kukak Bay, Alaska, July 4, 1899; Sitka, June 16.

Type no. 5287, U. S. National Museum.

Allied to *Pachynematus hoodi* Marlatt, but in that species the frontal crest is unbroken and the venter of the abdomen is yellowish.

PACHYNEMATUS GOTARUS sp. nov.

Male: Length 6 mm.; head strongly roughened and punctured, clothed with long sericeous pile; clypeus broadly and deeply notched, lobes pointed; area in front of ocelli destitute of ridges; antennal fovea obsolete; antennæ nearly as long as the entire body, densely pubescent, third joint slightly shorter than fourth; procidentia broad at base, projecting, broadly rounded at tip; stigma regularly rounded beneath; inner tooth of claw minute. Color black; tips of femora, tibiæ, apex

of abdomen, and the tarsi, testaceous, the last more or less infuscated at tip; wings hyaline, nervures brown, costa and stigma yellow.

One female, Popof Island, July 13.

Type no. 5288, U. S. National Museum.

Allied to *Pachynematus apicalis* Marlatt, but in that species the walls of the ocellar basin are present, the antennal fovea is developed, and the second recurrent nervure is interstitial with the second cubital.

SYNOPSIS OF PRECEDING SPECIES OF PACHYNEMATUS.

Females.

Sheath very large and projecting.....*ocreatus* Harrington.

Sheath normal.

Head black.....*orarius* sp. nov.

Head mostly yellow.

Venation normal.

Antennæ yellow.....*oronus* sp. nov.

Antennæ black.....*pleuricus* Norton.

Second recurrent interstitial.....*affinis* Marlatt.

Males.

Venation normal.

Hypopygium entirely pale, third joint of antennæ much shorter than the fourth.....*pleuricus* Norton.

Hypopygium pale at apex, third joint of antennæ but slightly shorter than fourth.....*gotarus* sp. nov.

Second recurrent interstitial.....*affinis* Marlatt.

PRISTIPHORA ORTINGA sp. nov.

Female: Length 5 mm., smooth and shining; head strongly, but sparsely punctured; vertex smooth, shining, entirely free from ridges; clypeus squarely truncate; antennal fovea indistinct shallow, punctured, merging posteriorly into the frontal area behind; antennæ short, third joint longer than fourth or fifth which are subequal; first cubital vein wanting; outer veins of discal cells in hind wings interstitial; sheath blunt at tip, rounded above and below; cerci minute; stigma narrow, broadest at base, tapering to apex; inner tooth of claw extremely minute. Color black; trochanters, tips of anterior and middle femora, tibiæ except tips of posterior pair, and the tarsi for the most part, testaceous; wings hyaline, nervures and stigma pale-brown, costa hyaline.

One female, Kukak Bay, July 4, 1899.

Type no. 5290, U. S. National Museum.

Allied to *Pristiphora sycophanta* Walsh, but in that species the antennal fovea is small and deep, faint ridges are present in front of

the ocelli and the outer veins of the discal cells in hind wings are not interstitial.

PRISTIPHORA ANAKA sp. nov.

Female: Length 5 mm.; head narrow, not trilobed, rather coarsely roughened and punctured; thorax and abdomen shining; clypeus truncate; area in front of ocelli entirely free from ridges; antennal fovea indistinct, merging posteriorly into the frontal area; antennæ short, third joint slightly shorter than fourth; intercostal cross-vein at right angles to costa a little more than its own length anterior to basal; first cubital nervure wanting; third cubital cell twice as broad at apex as at base; stigma narrow, three times as long as broad, the lower surface very gently rounded; sheath blunt, rounded above and below; cerci minute; inner tooth of claw of moderate size. Color black; outer half of femora, tibiæ except tips of middle and posterior pair, and the tarsi for the most part, testaceous; wings hyaline, nervures brown, the stigma and costa pale.

One female, Kukak Bay, Alaska, July 1, 1899.

Type no. 5291, U. S. National Museum.

Allied to the preceding species but differing in the form of the stigma.

PRISTIPHORA CIRCULARIS sp. nov.

Female: Length 4.5 mm.; head considerably narrower than thorax, not trilobed, evenly convex above, strongly punctured; thorax and abdomen shining, the former with a dense sericeous pile; clypeus truncate; antennal fovea obsolete; antennæ of moderate length, stout, tapering, third and fourth joints subequal; first cubital nervure wanting; upper discal cell considerably exceeding the lower in posterior wings; stigma very broad and short, almost orbicular; inner tooth of claw minute. Color black; apices of coxæ, trochanters, tips of anterior and middle femora, tibiæ except tips of posterior pair, and fore tarsi, testaceous; wings hyaline, nervures and stigma brown, the costa pale.

One female, Popof Island, July 10, 1899.

Type no. 5292, U. S. National Museum.

Allied to *Pristiphora lata* Cresson, but that species is larger and a distinct antennal fovea is present.

PRISTIPHORA BUCODA sp. nov.

Female: Length 7 mm.; head finely granulate, nearly as wide as thorax, not distinctly trilobed; clypeus truncate; area in front of

ocelli without ridges; antennal fovea distinct in front, merging behind into the frontal area; antennæ longer than head and thorax, rather stout, tapering slightly towards tip, third and fourth joints subequal; venation normal; stigma large, regularly rounded beneath; sheath robust, rounded above and below to a rather sharply pointed tip; inner tooth of claw robust and sharp close to apex. Color black; labrum white; clypeus, margin of pronotum, tegulæ, apical segments of tergum, venter in large part, and legs, testaceous; femora with a black spot beneath; tips of posterior tibiæ and the tarsi strongly infuscated; wings hyaline, nervures black, the costa and stigma yellowish.

Two females, Berg Bay, Alaska, June 10; Sitka, June 16.

Type no. 5289, U. S. National Museum.

Allied to *Pristiphora banksi* Marlatt, but that species is much smaller and more slender, the stigma is brown and the apical segments of the abdomen are not pallid.

PRISTIPHORA KOEBELI.

Pristiphora koebeli MARLATT, Revision of the Nematinae of North America, p. 119, 1896.

One female, Kukak Bay, July 4.

Differs from the type in that the medial area of the abdomen is not infuscated. This species was described from Washington.

PRISTIPHORA LENA sp. nov.

Male: Length 5.5 mm., rather slender, shining; head strongly and rather closely punctured, clypeus slightly emarginate; lateral walls of ocellar basin obsolete; frontal crest strongly raised, rounded, extending laterally to the orbits, unbroken in the middle; antennal fovea small, shallow, rounded; antennæ nearly as long as entire body, very stout at base, flattened, tapering, third and fourth joints subequal; stigma moderate, gently rounded beneath; procidentia excavated basally, strongly keeled; inner tooth of claw extremely minute, close to apex. Color black; minute spot at superior angles of pronotum, tegulæ, and tips of femora, testaceous; tips of coxæ, trochanters, tibiæ except tips of posterior pair, and tarsi, white; posterior tarsi black and apices of fore and medial tarsi infuscated; wings hyaline, nervures and stigma brown.

Two males, Sitka, June 16.

Type no. 5293, U. S. National Museum.

SYNOPSIS OF PRECEDING SPECIES OF PRISTIPHORA.

Females.

Body black with yellow markings on pronotum and tegulae.

Dorsulum of abdomen black except at tip.....*bucoda* sp. nov.

Dorsulum of abdomen principally yellow.....*koebeli* Marlatt.

Body entirely black.

Stigma narrow and elongate.....*anaka* sp. nov.

Stigma orbicular.....*circularis* sp. nov.

Stigma normal, regularly rounded beneath.....*ortinga* sp. nov.

Males.

Body black with white trochanters and tibiae.....*lena* sp. nov.

EUURA INSULARIS sp. nov.

Female: Length 4.5 to 5 mm.; slender, shining; clypeus very deeply and narrowly emarginate; ridges about ocellar area distinctly raised, but rounded; frontal crest broad, rounded, with a narrow notch in the middle; antennal fovea small, circular, moderately excavated; antennae short, slender, third to fifth joints subequal; outer veins of discal cells in hind wings interstitial; stigma rounded at base, tapering to an acute point; tarsal claws slender, subequal; sheath stout at base, rather sharply rounded at apex. Color black; labrum, base of mandibles, tips of coxae, trochanters, tips of femora, tibiae except apices of posterior pair, and anterior and middle tarsi, testaceous.

Male: Length 4.0; resembles female in general structural characters; antennae longer, stouter at base, tapering sharply; procidentia well developed, projecting, rounded at the apex; hypopygium sharply rounded at tip. Color black; flagellum of antennae, labrum, tip of clypeus, base of mandibles, spot beneath eyes extending upwards on inner orbits, testaceous; legs colored as in the female.

Twelve females and two males, Popof Island, July 9-15.

Type no. 5301, U. S. National Museum.

Swept from willow bushes.

Allied to *Euura salicicola* Smith, but in that species the ridges about the ocellar area are obsolete, the frontal crest is broad and flat and the sheath is broadly rounded at the apex. In both sexes of *Euura salicicola* the antennae are more or less pallid, while in *Euura insularis* this is true only of the males.

PONTANIA TUNDRA sp. nov.

Female: Length 3.5 mm.; rather slender; clypeus deeply and broadly emarginate, the lobes small and rounded; lateral walls of

ocellar basal sharply raised; frontal crest feebly developed except at the sides where it extends outwardly to the orbits; antennal fovea circular, deeply excavated; antennæ of moderate length, very slender, third joint much shorter than fourth or fifth, which are subequal; venation normal; stigma broad, regularly rounded beneath; claws deeply cleft; sheath broad at base, sharply acuminate at apex, emarginate beneath. Color black; labrum white; tegulæ brown; tips of femora, tibiæ except tips of posterior pair and all the tarsi, testaceous; wings hyaline, nervures pale brown; stigma yellow, hyaline at base.

Male: Length 3.5 mm.; resembles female in general structural characters; antennæ almost as long as the entire body, third to fifth joints subequal; lateral walls of ocellar basin not so sharply raised; procidentia squarely produced, rounded at apex; stigma brownish, paler at base, colored as in the female.

Two females and one male, Popof Island, July 12.

Type no. 5296, U. S. National Museum.

Allied to *Pontania cressoni* Marlatt, but that species is larger and the third joint of the flagellum is larger than fourth.

PONTANIA POPOFIANA sp. nov.

Female: Length 6 to 6.5 mm.; robust; clypeus deeply and narrowly emarginate; ridges about ocellar basin sharply raised; frontal ridge strong, unbroken; antennal fovea oval, deeply incised; antennæ elongate, slender reaching beyond basal plates; anterior discal cell considerably exceeding posterior discal in hind wings; stigma large, gently rounded below; tarsal claws large, stout, deeply cleft; sheath blunt at apex, rounded above and below. Color reddish yellow; dorsal surface of antennæ, eyes, tips of mandibles, spot surrounding ocelli, variable spots on anterior and middle lobes of mesonotum, variable marks on metanotum, dorsulum of abdomen except narrow lateral margins and apical segment, black; wings hyaline, nervures brown, stigma and costa yellowish hyaline.

Male: Length 5 mm.; slender, graceful; antennæ nearly as long as the entire body, joints three to five subequal; procidentia projecting one-half its length, squarely truncate at apex; legs slender, elongate; claws as in the female but more delicate. Color as in the female but the black maculations on the dorsulum are more extensive.

Ten females and six males, Popof Island, July 9-15.

Type no. 5294, U. S. National Museum.

Allied to *Pontania nevadense* Cresson, but in that species the sheath is acuminate at tip.

PONTANIA UNGA sp. nov.

Female: Length 5 mm.; moderately robust; head finely roughened; clypeus shallowly emarginate; walls of ocellar basin obsolete; frontal crest feebly developed, broad and flat; antennal fovea circular, deeply excavated; antennæ of moderate length, slender, third joint slightly shorter than fourth; area at juncture of mesothoracic lobes depressed and finely granulated; venation normal; stigma large, regularly rounded beneath; tarsal claws deeply and evenly cleft; sheath narrow, gently tapering above and below to a rather sharp apex. Color black, including the mouthparts and tegulæ; tips of anterior and middle femora and all the tibiæ testaceous; tarsi testaceous, more or less infuscated; wings hyaline, stigma pale brown, paler at base.

One female, Popof Island, July 12.

Type no. 5298, U. S. National Museum.

Allied to *Pontania atra* Marlatt, but in that species the antennal fovea is indistinct, the region at the juncture of the lobes of the mesonotum is shining and the stigma is narrow.

PONTANIA ORA sp. nov.

Female: Length 4.5 mm.; rather robust; clypeus deeply, circularly emarginate, lobes sharply pointed; frontal crest indistinct, broad, obsolete in the middle; antennal fovea faintly indicated; antennæ moderate in length, third to fifth joints subequal; second recurrent interstitial with second cubital nervure; outer veins of discal cells in hind wings interstitial; stigma narrow, gently curved on lower margin; claws deeply cleft, the inner ray the shorter; sheath narrow, tapering above and below to a rather sharply pointed apex. Color black; labrum, base of mandibles, and apices of femora, testaceous; remainder of legs testaceous, but the tips of posterior tibiæ and all the tarsi more or less infuscated; wings hyaline, nervures brown, stigma yellow.

Three females, Popof Island, July 10-15.

Type no. 5297, U. S. National Museum.

Allied to *Pontania atriventris* Marlatt, but differing in the sculpture of the head, the shape of the stigma, and in coloration.

PONTANIA PENINSULARIS sp. nov.

Female: Length 4 mm.; robust, shining; clypeus broadly and deeply emarginate, lobes rounded; lateral walls of ocellar basin feebly devel-

oped; frontal ridge strongly raised, broadly broken in the middle; antennal fovea large, oval, deeply incised; antennæ longer than head and thorax, slender, joints three to five subequal; sheath acutely pointed, narrow, tapering regularly above and below; claws deeply cleft, rays slender, subequal, parallel; venation normal; stigma broad regularly rounded beneath. Color black; labrum, clypeus, spot below antennæ, inner and outer orbits narrowly, angles of prothorax, tegulæ, greater part of venter except sheath and legs, yellowish; bases of coxæ black and the femora and tibiæ irregularly infuscated; wings hyaline, nervures light brown, base of costa and disk of stigma pallid.

One female, Kukak Bay, July 4.

Type no. 5301, U. S. National Museum.

Allied to *Pontania gracilis* Marlatt, but in that species the abdomen is very broad centrally and the sheath is rounded at the tip instead of acutely pointed.

PONTANIA ISLANDICA sp. nov.

Female: Length 5 to 6 mm.; moderately robust, shining; clypeus deeply and narrowly notched, lobes rounded; walls about ocellar basin distinctly raised; frontal crest strongly raised, deeply notched in the middle; fovea oval, rather deep; antennæ as long as head and thorax, third joint shorter than fourth; venation normal; stigma large, evenly rounded below; claws stout, strongly and evenly cleft; sheath rather stout, gently tapering above and below to a rounded apex; cerci long, stout. Color black; labrum, clypeus, narrow inner orbits, broader outer orbits, margin of pronotum, tegulæ, apex of abdomen, including the sheath and the legs, yellowish; coxæ black at base and all the legs more or less infuscated; wings hyaline, nervures and stigma pale brown.

Four females, Popof Island, July 9-15.

Type no. 5299, U. S. National Museum.

Allied to *Pontania californica* Marlatt, but in that species the antennæ are much shorter and the walls of the ocellar basin are not well defined.

PONTANIA GLINKA sp. nov.

Female: Length 5.5 mm.; robust, shining; clypeus very shallowly emarginate; lateral walls of ocellar basin distinctly raised; frontal crest strong, unbroken; antennal fovea circular, rather deeply incised; antennæ as long as head and thorax, slender, third joint shorter than fourth; venation normal; claws deeply cleft, rays equal; sheath stout, tapering above and below to a narrowly rounded apex; stigma with

lower margin nearly straight, tapering slightly. Color black; face below frontal crest, flagellum beneath, inner and outer orbits, greater part of pronotum, tegulae, spots on pectus and pleura sometimes absent, medial area of venter, apical segment of tergum, and legs, yellowish white; bases of all the coxae and lines above on femora black; wings hyaline; stigma and costa yellowish, remaining nervures brown.

Male: Length 5.5 mm.; antennae longer than in the female, stout at base, tapering; colored as in the female but the antennae are not pale beneath and the stigma is brown; tarsi more or less infuscated.

Nine females and four males, Popof Island, July, 1899.

Type no. 5295, U. S. National Museum.

Allied to *Pontania stigmatalis* Marlatt, but that species is smaller, the clypeus is deeply emarginate and the antennal fovea is shallow.

PONTANIA KUKAKIANA sp. nov.

Female: Length 5.5 mm.; robust; head finely granulated, narrowed behind the compound eyes; clypeus narrowly emarginate; area in front of ocelli without ridges; frontal crest obsolete; antennal fovea shallow, indistinct; antennae as long as head and thorax, slender third joint shorter than fourth; stigma narrow, tapering; sheath moderately robust, tapering above and below to a rather acute apex. Color black; spot between antennae, labrum, clypeus, orbits, prothorax, sutures of mesonotum, tegulae, pleurae, pectus venter of abdomen, and legs, dull reddish; base of medial and posterior femora more or less infuscated.

One female, Kukak Bay, July 2.

Type no. 5300, U. S. National Museum.

Allied to *Pontania desmodioides* Walsh, but in that species the head is strongly punctured and the fovea is deeply excavated.

SYNOPSIS OF PRECEDING SPECIES OF PONTANIA.

Females.

Body black.

Sheath acuminate at tip.....*tundra* sp. nov.

Sheath not acuminate.

Venation normal.....*unga* sp. nov.

Second recurrent interstitial, also outer veins of discal cells in hind wings.....*ora* sp. nov.

Body with pale markings.

Pectus pale.

Antennae yellow.....*popofiana* sp. nov.

Antennae black.....*kukakiana* sp. nov.

Pectus black.Sheath acutely pointed *peninsularis* sp. nov.

Sheath rounded at tip.

Clypeus shallowly emarginate..... *glinka* sp. nov.Clypeus deeply notched..... *islandica* sp. nov.*Males.*Head black *tundra* sp. nov.Head black with narrow yellow orbits..... *glinka* sp. nov.Head yellow. *popofiana* sp. nov.**PTERONUS SHUMAGENSIS** sp. nov.

Female: Length 6.5 to 8 mm.; robust, shining; clypeus not very widely, but deeply emarginate, lobes rounded; ocellar basin distinctly defined, lateral walls sharply raised; frontal crest strong, bituberculate, notched in the middle; antennal fovea elongate, deeply incised; antennæ as long as head and thorax, slender, third to fifth joints subequal; second recurrent nervure interstitial with the second cubital; stigma narrow, rounded at base and tapering to apex; sheath rather sharply pointed at tip, rounded below, almost straight above; cerci robust, reaching tip of sheath; claws deeply and evenly cleft. Color reddish yellow; two basal joints of antennæ, flagellum above, spot surrounding ocelli, spots on lateral lobes of mesonotum, spot on middle lobe of mesonotum, absent in some specimens, apex of scutellum in some specimens, tergum of abdomen, except apical segment, black; tips of tarsi infuscated; wings hyaline; nervures brown, except costa and stigma, which are yellowish.

Four females, Popof Island, July 9-12, 1899.

Type no. 5303, U. S. National Museum.**PTERONUS ZEBRATUS** sp. nov.

Female: Length 6 mm.; slender, shining; head narrowed behind compound eyes, somewhat roughened; clypeus shallowly and not very broadly emarginate; sides of ocellar basin distinct, but rounded; frontal crest strongly and sharply raised, curved forward, unbroken; antennal fovea minute, indistinct; antennæ considerably longer than head and thorax, very slender, scarcely tapering, third joint slightly shorter than fourth; venation normal; stigma gently rounded below; sheath blunt at apex, obliquely truncate, upper margin nearly straight; cerci short, stout; claws shallowly cleft, rays subequal. Color of dorsulum black; antennæ pale beneath; broad inner and outer orbits, pronotum, tegulæ, sutures of mesonotum, anterior half of scutellum,

sutures of tergum, and narrow lateral margin of abdomen, light yellow; pectus and pleuræ, except a black spot beneath wings, yellow; face below antennæ and venter of abdomen, white; legs yellowish white; wings hyaline, nervures dark brown, stigma and costa hyaline.

One female, Yakutat, Alaska, June 21, 1899.

Type no. 5305, U. S. National Museum.

Allied to *Pteronus vertebratus* Say, but in that species the head is broadened behind the compound eyes.

PTERONUS RIVULARIS sp. nov.

Male: Length 7 mm.; slender, shining; clypeus narrowly and deeply emarginate, lobes rounded; walls about ocellar basin distinct but not sharply raised; frontal ridge broken in the middle into the shallow, narrow, antennal fovea; antennæ considerably longer than head and thorax, flattened at base, tapering gradually to apex, third joint much shorter than fourth or fifth, which are subequal; procidentia scarcely produced, truncate; venation normal; stigma narrow, rounded at base, tapering to an acuminate apex; claws not very deeply cleft, inner ray shorter. Color black; clypeus, labrum, apex of coxæ, trochanters, apex of anterior femora, and anterior and middle tibiæ, whitish; wings smoky hyaline, nervures, including stigma and costa, dark brown.

Two males, Sitka, June 16.

Type no. 5304, U. S. National Museum.

Allied to *Pteronus iridescent* Cresson, but that species is smaller and the antennæ are much shorter.

AMAURONEMATUS ISOLATUS sp. nov.

Female: Length 10 mm.; robust, covered with a dense sericeous pile; clypeus deeply and triangularly emarginate, lobes triangular, acute; walls of ocellar basin sharply raised; frontal crest bituberculate, deeply notched in the middle; antennal fovea minute, indistinct; antennæ as long as the head and thorax, stout, scarcely tapering, third joint shorter than fourth; second recurrent nervure nearly interstitial with second cubital; stigma narrow, broadest near base, tapering to an acute point; sheath broad, obtuse at apex, rounding above and below; cerci short, somewhat constricted at base; claws stoutly cleft, innermost ray the shorter. Color ferruginous; scape, pedicellum, apical joint of antennæ, spot surrounding bases of antennæ, clypeus, base of labrum, small spots behind posterior ocelli, line on middle lobe of mesonotum, apex of scutellum, metanotum, lower angle of

pronotum, basal plates, spots in center of apical segments of tergum, prosternum, pectus, venter basally and along margins, and coxæ, black; legs ferruginous; wings yellowish hyaline, nervures, including stigma and costa, reddish yellow.

One female, St. Paul Island, Alaska, August 13.

Type no. 5306, U. S. National Museum.

Family TENTHREDINIDÆ.

DOLERUS SERICEUS.

Dolerus sericeus SAY, Keatings, Narr. Exped. II, p. 320, 1824. App.

Four females and ten males: Yakutat, June 21; Berg Bay, June 11; Sitka, June 16; Virgin Bay, June 20; Kadiak, July 21. This species is widely spread throughout the United States and Canada.

DOLERUS APRILIS.

Dolerus aprilis NORTON, Proc. Bost. Soc. Nat. Hist., VIII, p. 152, 1861.

Seven females: Orca, June 27; Virgin Bay, June 26; Yakutat Bay, June 21; Kukak Bay, July 4. This species is also widely distributed in the United States and Canada.

DOLERUS ELDERI sp. nov.

Female: Length 6 to 6.5 mm.; head and thorax strongly punctured, clothed with long sericeous pile; abdomen broad, suddenly narrowed at apex; clypeus deeply and circularly emarginate; antennæ not quite so long as head and thorax, slender, scarcely tapering, third joint longer than fourth; stigma broadest near base, gently rounded below, truncate at apex; sheath broad at base, tapering to a rather sharp point. Color black; broad band on abdomen, including the greater part of segments two to five, sanguineous; legs black, tips of anterior and medial femora and basal half of fore tibiæ, reddish; wings hyaline, nervures and stigma dark brown.

Male: Length 6 to 6.5 mm.; resembles the female in general structural characters; colored as in the female, but the basal half of the medial and posterior tarsi are reddish.

Two females and four males, Popof Island, July 10; Kukak Bay, July 3.

Type no. 5307, U. S. National Museum.

Named in honor of the ship *Geo. W. Elder*, in which the Harri-man Expedition made their home during the voyage.

A single specimen from *Saldovia* agrees with the above in structure but lacks the red band upon the abdomen. It may be a variety of this species.

EMPHYTUS ANGUSTUS sp. nov.

Male: Length 6 mm.; body very slender, head shining, finely and sparsely punctured, much narrowed behind the compound eyes; ocellar area very convex; clypeus slightly, circularly emarginate; antennæ a little shorter than head and thorax, slender, third joint considerably longer than fourth; joints six to nine, contracted at base and apex; stigma slender, gently rounded beneath, apex acute. Color black; under surface of antennæ obscurely testaceous; basal joint of antennæ, labrum, clypeus, greater part of pronotum, tegulæ, and triangular spot on pleura, pure white; diamond-shaped spots of a yellowish-brown color on dorsal abdominal segments one to six; legs white; upper surface of femora, the tibiæ and tarsi more or less infuscated; wings hyaline, nervures and stigma brown.

One male, Kukak Bay, July 4.

Type no. 5308, U. S. National Museum.

Allied to *Emphytus apertus* Norton, but in that species the clypeus is more deeply emarginate, the antennæ are shorter, stouter, and more tapering, the basal joint of the antennæ is black and the legs are differently colored.

PACHYPROTASIS NIGROFASCIATA.

Pachyprotasis nigrofasciata ESCHSCHOLTZ, Entomog., p. 96, 1822. (*Tenthredo*.)

Macrophya (Pachyprotasis) omega NORTON, Trans. Amer. Ent. Soc., II, p. 280, 1867.

Tenthredo nigrofasciata NORTON, Trans. Am. Ent. Soc., II, p. 241, 1869.

Emphytus ? nigrofasciatus W. F. KIRBY, List. Hym. Br. Museum, I, p. 204, 1882.

Pachyprotasis omega PROVANCHER, Faun. Entom. Canada, Hymén., p. 210, 1883.

Emphytus nigrofasciatus DALLA TORRE, Cat. Hym., I, p. 119, 1894.

In 1822 Eschscholtz described two sawflies from Unalaska, to which he gave the names *Tenthredo nigrofasciata* and *Tenthredo subcærulea*. The latter has since been rediscovered and is a genuine *Tenthredo*, but the generic position of his *Tenthredo nigrofasciata* has been in considerable doubt. Norton in discussing this species in his catalogue suggests that it might be a *Macrophya*. Kirby in his list of the Hymenoptera in the British Museum places it doubtfully in *Emphytus*, and in this he is followed by Dalla Torre in his catalogue of the *Tenthredinidæ* and *Uroceridæ*.

Specimens of a Tenthredinid taken at Unalaska and at other points in Alaska agree very perfectly with the description given of *Tenthredo nigrofasciata*. If this conclusion is correct then Eschscholtz's species must have been a Pachyprotasis, to which genus the species above referred to belongs. On further investigation it was found that this Alaska Pachyprotasis is specifically the same as *Pachyprotasis omega* Norton, which is known to occur throughout the greater part of the United States and Canada, and is recorded from the Pacific coast, Labrador, and Saskatchewan.

Six specimens, Unalaska, August 24; Popof Island, July 13; Unga Island, July 21; Virgin Bay, June 26.

MACROPHIYA OREGONA.

Macrophya oregona CRESSON, Trans. Am. Ent. Soc., VIII, p. 19, 1880.

One specimen, Saldovia, July 21. This species was described from Oregon, but is also found in Washington.

TENTIAREDO FERRUGINEIPES.

Tenthredo ferrugineipes CRESSON, Trans. Am. Ent. Soc., VIII, p. 22, 1880.

This is one of the commonest of the Alaska Tenthredos, and is represented in the collection by some fifty specimens, from almost every locality touched at, including Sitka, Virgin Bay, Saldovia, Kadiak, Kukak Bay, and Popof Island. It was originally described from Colorado, but it is known to be widely distributed on the Pacific coast and in British America. Males and females were about equally abundant; the former differ considerably from the opposite sex in shape, which is as usual much narrower, and in coloration; the abdomen is bright red in the middle but the basal plates and the three apical segments are black.

TENTIAREDO VARIPICTA.

Tenthredo varipicta NORTON, Trans. Am. Ent. Soc., II, p. 234, 1868.

This species is also widely distributed and abundant and is generally found in company with the preceding. The fifty specimens in the collection were taken at Fox Point, Berg Bay, Sitka, Yakutat, Saldovia, Kadiak, Kukak Bay, and Popof Island. The male differs considerably from the female in coloration; the abdomen in the former sex is reddish yellow above with black markings on the basal plates and first segment, the venter of the abdomen is white at base, becoming reddish towards tip, and the pectus is yellowish white.

TENTHREDO MELLINA.

Tenthredo mellina NORTON, Bost. Jour. Nat. Hist., VII, 2, p. 254, 1860.

Three females, Popof Island. Taken on the flowers of *Heracleum lanatum*.

TENTHREDO EVANSII.

Tenthredo evansii HARRINGTON, Can. Ent., XXI, p. 78, 1889. (Tenthredopsis.)

Five females and four males, Sitka, June 16; Yakutat, June 21; Saldovia, July 21; Kadiak, July 20; Virgin Bay, June 26. This is a very variable species, the amount of black pigment on the dorsulum of the abdomen varying considerably. The female in some of its variations resembles *Tenthredo californica* Norton, but the males are extremely different; in *californica* the latter sex has the dorsal surface of the abdomen almost entirely black, while in *evansii* the corresponding region is yellowish green with a variable narrow band across each segment.

TENTIIREDO LINEATA.

Tenthredo lineata PROVANCHER, Natural. Canad., x, p. 198, 1878.

Three females, Sitka, June 16; Virgin Bay, June 26; Gustavus Point. Previously known from Canada, Colorado, and New Hampshire.

TENTHREDO FLAVOMARGINIS.

Tenthredo flavomarginis NORTON, Bost. Jour. Nat. Hist., VII, 2, p. 254, 1860.

Five females and one male, Berg Bay, June 10; Yakutat, June 21; Saldovia, July 21. The male resembles the female except in the narrower form of the body and in the presence of three reddish-brown spots on the dorsum of the abdomen. This species was originally described by Norton from Connecticut, but is also known from Colorado.

TENTHREDO NIGRICOLLIS.

Tenthredo nigricollis KIRBY, List, Hym. Br. Mus., I, p. 308, 1882.

Three females and one male, Sitka, June 16; Saldovia, July 21; Kukak Bay, July 4. This species was originally described by Kirby from Newfoundland, and is also recorded from New Hampshire. The male differs from the female in the narrower form of the body and in the presence of several pale-brown spots on the upper surface of the abdomen; it agrees very closely with the male described by Mr. Harrington as *Tenthredo semicornis* (Can. Ent., XXI, p. 98, 1889), and may prove to be identical with it.

TENTHREDO ERYTHROMERA.

Tenthredo erythromera PROVANCHER, Addit. Faun. Canada, Hymén., p. 13, 1885.

Ten females, Sitka, June 16; Metlakahtla, June 4; Muir Inlet, June 10; Saldovia, July 21; Kukak Bay, July 4; Yakutat, June 21; Kadiak, July 4. This species was described by Provancher, from Vancouver Island, but it also occurs in Colorado and Washington. The specimens in the collection vary but slightly, except in the coloration of the labrum and clypeus, which range from almost pure yellow to black.

TENTHREDO MELANOSOMA.

Tenthredo melanosoma HARRINGTON, Can. Ent., xxvi, p. 194, 1894.

Six females and one male, Sitka, June 16; Saldovia, July 21; Yakutat, June 21; Kadiak, July 20. This species was described by Mr. Harrington, from Fort Wrangell, Alaska. The male resembles the female, except in the narrower form of the body and in the presence of three brown vittæ on the dorsulum of the abdomen.

TENTIIREDO HARRIMANI sp. nov.

Female: Black with the following parts ferruginous: Antennæ, spot externally on jaws, tegulæ, all of legs beyond trochanters, variable obscure spots on disc of third, fourth, and fifth tergal segment of abdomen; clypeus, labrum, base of mandibles, spot between antennæ, narrow line at lower margin of eyes, posterior angles of pronotum, and small circular spot above posterior coxæ, yellow; clypeus squarely and deeply emarginate with the lobes obliquely truncate; antennæ with the third joint one-quarter longer than the fourth; wings yellowish hyaline, nervures brown, stigma pale brown. Length 10 mm.

Four females, Popof Island, July 15, 1899.

Type no. 5310, U. S. National Museum.

Named in honor of Mr. Edward H. Harriman, of New York, in appreciation of his generous aid to scientific investigation.

TENTHREDO DISSIMULANS sp. nov.

Female: Light green with the following parts black: Ocelli, an irregular spot surrounding the ocellar prominence and extending backwards in two bands that almost reach the posterior margin of the head, fine lines in the sutures of the mesonotum, spots at the base of the wings, spot before scutellum, sutures of tergal abdominal segments sometimes expanded into semilunar spots; legs green, with a

short line on upper distal end of all the femora, a line outwardly on all the tibiæ, black; abdomen obscurely tinged with reddish on apical segments; clypeus shallowly emarginate; wings hyaline, nervures black; costa and stigma pale. Length 10 mm.

Male: Marked as in the female but more distinctly; clypeus with a black dot on each side; legs with a black line outwardly extending from the trochanters to the tarsi, which are clothed with a dark pubescence.

One hundred specimens, Popof Island, July 7-12; Kukak Bay, July 1-7, 1899.

Type no. 5312, U. S. National Museum.

Usually found on the flowers of *Heracleum lanatum*.

TENTIAREDO BIVITTATA sp. nov.

Female: Body slender, elongate; head of about the same breadth as the thorax; clypeus deeply and squarely emarginate. Color black; clypeus labrum, basal part of mandibles, spot above posterior coxæ, and spot at sides of basal plate, white; tegulæ and faint reflection on third dorsal abdominal segment, ferruginous; coxæ black; remainder of legs reddish; spots at base of middle femora, line on hind femora above broadest at base, and spot at tip of posterior tibiæ, black; posterior tarsi more or less infuscated at tips of joints. Antennæ as long as head and thorax with the third joint one-quarter longer than the fourth. Wings hyaline, nervures and stigma black, costa pale.

One female, Popof Island, July 9.

Type no. 5311, U. S. National Museum.

ALLANTUS HERACLEI sp. nov.

Female: Length 11 mm.; robust; head very heavily pitted and punctured; oculi situated upon a pronounced elevation; clypeus deeply, circularly emarginate; antennæ very short, nine-jointed, hardly reaching to tegulæ, stout, slightly clavate at tip; thorax strongly punctured; scutellum similarly but more closely pitted; pleura very closely pitted but more closely so than the dorsulum; abdomen smooth, delicately striated; stigma narrow, squarely truncate at apex. Color black, with the following parts yellow: Labrum, clypeus, base of mandibles, ventral angles of pronotum, spots on dorsal angles united by a slender line, spots above middle and posterior coxæ, band across posterior margin of basal plates; narrow line across posterior margin of dorsal abdominal segments three, four, and five; row of large spots along outer margins of venter; small

spots at apex of coxæ, anterior surface of fore and medial femora band on basal two-thirds of posterior femora, tibiæ except small spot at apices, tarsi except spots above; wings hyaline, nervures and stigma.

Male: Length 10.5 mm.; body narrower than in the female; sculptured and colored as in female, but the spots on the pronotum are reduced or absent, the band on the basal segment is wanting, venter entirely yellow, coxæ yellow, femora, tibiæ, and tarsi black above yellow beneath; posterior tarsi entirely black.

Two females and four males, Popof Island, July 14.

Type no. 5309, U. S. National Museum.

Taken upon the flowers of *Heracleum lanatum*.

Family CIMBICIDÆ.

CIMBEX AMERICANA.

Cimbex americana LEACH, Zool. Miscell., III, Tab. 61, 1817.

A single specimen captured on Kadiak Island by Mr. L. Cole. This is a variety of this variable species in which the body is entirely blue-black, white maculations being entirely absent, and the wings are clear with some yellow spots along nervures.

TRICHIOSOMA TRIANGULUM.

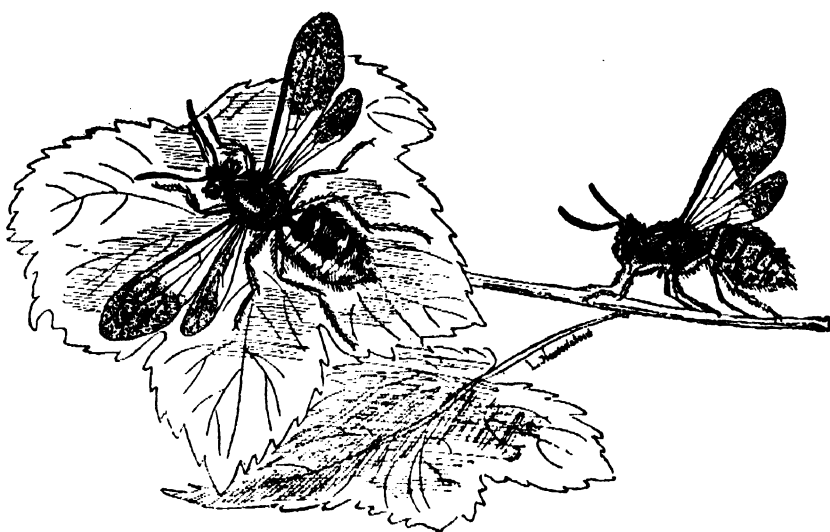
Trichiosoma triangulum var. *aleutiana* CRESSON, Trans. Am. Ent. Soc., VIII, p. 1, 1880.

Five specimens from Kukak Bay, Kadiak Island, and Popof Island. The specimens agree perfectly with those of the above species in the collection of the American Entomological Society.

THE SPHEGOIDEA AND VES-
POIDEA OF THE EXPEDITION

The following report on the Sphegoidea and Vespoidea of the Expedition, by Prof. Trevor Kincaid, was originally published in the Proceedings of the Washington Academy of Sciences, vol. 11, pp. 507-510, Dec. 20, 1900. It is here reprinted from the same electrotypes plates, so that it may be quoted exactly as if it were the original. The original pagination has been preserved and transferred to the inner or hinge side of the page, where it is enclosed in brackets, thus [508]; while the consecutive pagination of the present volume has been added in the usual place. The present headpiece and title have been substituted for the running heading of the Academy's Proceedings and the original title, which was: *Papers from the Harriman Alaska Expedition. XIV. Entomological Results (8): The Sphegoidea and Vespoidea*. No other alterations have been made. The generic name 'Arachnospila' on page 111 [509], ninth line from top, should read *Arachnophila*.

EDITOR.



THE SPHEGOIDEA AND VESPOIDEA

BY TREVOR KINCAID

THE collection upon which this report is based is a small one, including but nine species, but it is of considerable interest from the fact that but a single representative of the above groups has been recorded from Alaska, namely *Dolichocrabro wickhami* Ashmead,¹ which was collected by Mr. H. F. Wickham at Fort Wrangell. At the same time and place Mr. Wickham captured a Pemphredonid which Mr. Ashmead determined as *Pussalæcus cuspidatus* Smith. In the collection of the U. S. National Museum there is also a Chrysid collected at Fort Yukon by Mr. L. M. Turner in 1877. This has been determined by Mr. Ashmead to be *Omalus sinuosus* Say. These three species, together with those listed below, bring the total number of known Alaska forms up to twelve. It is evident that the coastal regions of Alaska do not afford a favorable environment for either fossorial Hymenoptera or wasps.

¹ Synopsis of the superfamily Sphegoidea, Can. Ent., xxxi, p. 216, 1899.

SPHEGOIDEA.

Family CRABRONIDÆ.

Ectemnius parvulus (Packard).

Crabro parvulus PACKARD, Proc. Ent. Soc. Phila., VI, p. 108, 1866.

One female and four males, Saldovia, July 21. Taken on the flowers of *Heracleum lanatum*. Recorded from Washington and eastward to Dakota.

Clytochrysus gracilissimus (Packard).

Crabro gracilissimus PACKARD, Proc. Ent. Soc. Phila., p. 78, 1866.

Eight females and ten males, Fox Point, Alaska, July 28. On flowers of *Heracleum*. Recorded from Washington and eastward to Dakota.

Thyreopus vicinus (Cresson).

Crabro vicinus CRESSON, Proc. Ent. Soc. Phila., IV, p. 479, 1865.

One female, Kukak Bay, Alaska, July 4. Recorded from Washington eastward to Nebraska.

Blepharipus ater (Cresson).

Crabro ater CRESSON, Proc. Ent. Soc. Phila., IV, p. 477, 1865.

One female and two males, Saldovia, Alaska, July 28. On flowers of *Heracleum*. Recorded from Washington and eastward to Maine.

Family PEMPHREDONIDÆ.

Mimesa propinqua sp. nov.

Male: Dorsal region of head closely and distinctly punctured, without any signs of striæ; cheeks with very faint punctures; clypeus and face with a silvery gray pile; head and thorax with long gray hair, most evident on the pleuræ and middle segment; clypeus obtusely bidentate; dorsulum with distinct separated punctures, striate behind; mesopleuræ very delicately striated, with no evident sign of punctures; middle segment coarsely rugose-reticulate, with a triangular smooth space at base, posterior surface depressed medially, the central area bounded by distinct but irregular ridges; sides with indistinct and rather irregular striæ. Color black; calcaria and tarsi testaceous. Length 7 mm.

Three males, Fox Point, Alaska, July 28.

Type.—Cat. no. 5314, U. S. National Museum.

This species is closely allied to *Mimesa mixta* Fox, which is recorded from California, Oregon, and Washington, but a comparison

with the types of the latter species in the collection of the American Entomological Society leads the writer to the conclusion that the northern form is distinct, since in *M. mixta* the antennæ and petiole are both shorter, the posterior face of the middle segment is not depressed and the smooth area at the base is lacking; also the front of the head is striato-punctate, which is not the case in the new form.

VESPOIDEA.

Family POMPILIDÆ.

Arachnospila septentrionalis sp. nov.

Female: Black; first and second segments of abdomen sanguineous except the extreme base of first segment and narrow apical margin of second, which are black; head broader than thorax, smooth, with indistinct, widely separated punctures; vertex and front sparsely clothed with long black hair, a greater abundance of the same on the cheeks; eyes separated from the mandibles by a narrow margin, converging but little above, the space between them equal to one and one-half times the length of the first joint of the flagellum; space between hind ocelli a little less than that between them and nearest eye-margin; clypeus very slightly emarginate, almost truncate, the lateral anterior angles rounded and the anterior border finely margined; antennæ slender, nearly as long as head and thorax, first joint of flagellum longer by one-fourth than the second; pronotum angulate behind; scutellum flatly convex in the center, declivous at the sides; middle segment strongly rounded out, smooth, with a faint trace of a medial groove; medial and posterior tibiæ and tarsi with numerous spines outwardly; anterior tibiæ and tarsi with a row of spines along outer margin; tarsi coarsely ciliated beneath; inner spur of hind tibiæ two-thirds the length of the first tarsal joint; claws with a sharp median tooth; abdomen elongate-ovate, as long as the head and thorax; wings fuliginous; third submarginal narrowed about one-fourth on upper margin, the third cubital nervure curved outwardly; second submarginal of nearly the same shape and slightly smaller than the third submarginal, the first cubital nervure curved toward the base of the wing; first recurrent nervure received a little beyond the middle of the second submarginal; second recurrent received before the middle of the third submarginal cell. Length 8.5 to 9 mm.

Two females, Kukak Bay, Alaska. Taken on the flowers of *Hera-cleum lanatum*.

Type.—Cat. no. 5313, U. S. National Museum.

Family VESPIDÆ.**Vespa marginata** Kirby.

Vespa marginata KIRBY, Faun. Bor. Am., IV, p. 265, 1837.

Two females and a worker, Kukak Bay, Alaska, July 3. Recorded from British Columbia.

Vespa borealis Kirby.

Vespa borealis KIRBY, Faun. Bor. Am., IV, p. 264, 1837.

Three females and three workers, Sitka, June 15; Virgin Bay, June. Recorded from British Columbia.

Family EUMENIDÆ.**Odynerus albophaleratus** Saussure.

Odynerus albophaleratus SAUSSURE, Synop. Am. Wasps, Sol., p. 191, 1875.

Seven females and nine males, Kukak Bay, July 3; Saldovia, July 21; Fox Point, July 28. The species is widely distributed throughout the United States and is recorded from the Pacific coast as far north as Washington. The coloration varies considerably, and in most of the Alaska specimens the clypeus is either pure black or else a couple of small yellow spots are present on the anterior margin.

FORMICIDÆ OF THE EX-
PEDITION

The following paper on the Ants (Formicidæ) of the Expedition, by Theo. Pergande, of the Division of Entomology, U. S. Department of Agriculture, was originally published in the Proceedings of the Washington Academy of Sciences, vol. 11, pp. 519-521, Dec. 20, 1900. It is here reprinted from the same electrotpe plates, so that it may be quoted exactly as if it were the original. The original pagination has been preserved and transferred to the inner or hinge side of the page, where it is enclosed in brackets, thus [520]; while the consecutive pagination of the present volume has been added in the usual place. The present headpiece and title have been substituted for the running heading of the Academy's Proceedings and the original title, which was: *Papers from the Harriman Alaska Expedition. xvii. Entomological Results (11): Formicidæ.* No other alterations have been made.

EDITOR.



FORMICIDÆ OF THE EXPEDITION

BY THEODORE PERGANDE

THE present paper is based upon a small collection of Alaska Formicidæ, made by Professor Trevor Kincaid while connected with the Harriman Expedition during the summer of 1899, and is especially interesting on account of the close relationship of most of the species to those of our northwestern States.

Subfamily CAMPONOTINI.

Formica neorufibarbis Em.

Formica neorufibarbis EM., Zool. Jahrb. Jena, p. 660, 1899.

The series representing this species are all workers, and were obtained in the following localities: Sitka, 1 specimen; Metlakahtla, 5 specimens; and Kadiak, 34 specimens. Those from the latter locality were found in a rotten log.

The species is quite variable as to coloration; the palest forms, from Metlakahtla, are absolutely identical with those found in Colorado, Dakota, and Oregon, while the darker specimens agree more or less closely with forms occurring in Colorado, Utah, and some of the far northwestern States.

Lasius niger L. subsp., *sitkaensis* subsp. nov.

Worker: Length about 4 mm. Head and abdomen dark brown, the posterior edge of the abdominal segments whitish or more or less

distinctly yellowish or greenish in a certain light, front of head as far as the eyes, the clypeus, cheeks, and under side of the head, sides of the thorax, the antennæ and legs, lighter or darker ferruginous; apex of the joints of the flagellum dark brown; mandibles red, their external edge and the teeth, as well as the eyes, black; palpi yellowish. Appressed pubescence yellowish and rather dense on the head and abdomen; erect hairs quite profuse, yellowish or brownish in certain lights; those of the clypeus, the under side, and end of the abdomen much the longest; there are but a few erect hairs on the scape, the femora and tibiæ. Punctuation of the head, thorax, and abdomen minute and dense, those of the mandibles rather coarse. Scale stout, its upper edge arcuated.

This ant, as far as I have been able to ascertain, does not agree with any of the various forms comprising the group *L. niger*, which have thus far been described, but appears to be nearest related to one of the forms of *Lasius subniger*, inhabiting Maine, though it is almost twice as large and much darker and with the eyes more elongated; the general appearance of this ant is very similar to that of *Lasius aliena*.

Twenty-five specimens, taken at Sitka during June.

Type.—Cat. no. 5277, U. S. National Museum.

Subfamily MYRMICINI.

Leptothorax yankee Em. var. **kincaidi** var. nov.

Female: Length about 4 mm. Head and thorax black, the abdomen dark brown, with the posterior edge of the segments brownish yellow; antennæ, mandibles, and legs yellowish red, the neck and paler parts of the nodes of a darker red; the flagellum grows gradually darker towards the end, with the last joint black; femora dark brown, their base and apex yellowish red; teeth of mandibles black. Head finely striated, the striæ most distinct in front of the eyes and between the frontal carinæ; the posterior half of the head is finely and rather densely rugose or reticulate, the clypeus is almost smooth and the mandibles striato-punctate; pronotum and mesonotum quite coarsely rugose, the metanotum, scutellum and upper surface of nodes finely, though rather indistinctly, striated; declivity of the metathorax transversely striated. Abdomen smooth. Erect hairs short, truncate and pale yellowish, those of the nodes and abdomen longest; there are also a few much finer, erect hairs on the femora.

The female resembles somewhat that of *L. yankee*, which, however, is somewhat smaller, the last antennal joint and metanotal spines

shorter, the hairs of the abdomen much finer and the erect hairs of the femora wanting.

Worker: Length about 3 mm. Head and teeth of mandibles black, the abdomen dark brown; antennæ, mandibles, thorax, legs and nodes reddish yellow; coloration of the last three or four joints of the antennæ and the femora as in the female, the upper surface of the thorax and nodes more or less decidedly reddish brown. Striation of the head more distinct than in the female, and the space between the striæ more or less distinctly reticulated, particularly so towards the sides. Pronotum and mesonotum and the nodes finely rugose; sculpturing of the metanotum slightly coarser. Abdomen smooth; all the hairs similar to those of the female.

The worker is very similar in appearance to those of *L. yankee*, though somewhat larger, more robust, the sculpturing coarser and the hairs stouter.

One female and twelve workers, taken at Metlakahtla in June.

Type.—Cat. no. 5278, U. S. National Museum.

***Myrmica sabuleti* Meinert, var. *lobifrons* var. nov.**

Worker: Length about 3 mm. Color dark brown or black; mandibles, antennæ, legs, sides of the thorax and of the abdomen more or less distinctly yellowish brown, reddish brown, or almost black.

This variety is closely related to a form of *Myrmica sabuleti* inhabiting South Dakota, but is somewhat larger and much darker, with the sculpturing of the head and thorax coarser and the hairs stouter and shorter.

Type.—Cat. no. 5279, U. S. National Museum.

***Myrmica sulcinodoides* Em.**

Myrmica sulcinodoides EM., Zool. Jahrb. Jena, p. 313, 1894.

The palest specimens of this series agree exactly with those which I have seen from Hill City, South Dakota, while others are of a considerably darker shade.

Sixteen workers, collected at Sitka, June, 1899.

HYMENOPTERA OF ALASKA

The following paper on the Hymenoptera of Alaska, by William Harris Ashmead, Assistant Curator, Division of Insects, U. S. National Museum, was originally published in the Proceedings of the Washington Academy of Sciences, vol. iv, pp. 117-274, May 29, 1902. It is here reprinted from the same electrotypes plates, so that it may be quoted exactly as if it were the original. The original pagination has been preserved and transferred to the inner or hinge side of the page, where it is enclosed in brackets, thus [118]; while the consecutive pagination of the present volume has been added in the usual place. In the plates the original numbers and running headline, slightly abbreviated, have been preserved [in brackets], while the volume designation and serial plate numbers have been added in the usual place. The original text references to the plates are unchanged. The present headpiece and title have been substituted for the running heading of the Academy's Proceedings and the original title, which was: *Papers from the Harriman Alaska Expedition. xxviii. Hymenoptera*. No other alterations have been made.

The author desires to record the following corrections:

Page 124 [118], twelfth line from top, 'Schmieds-knecht' should read *Schmiedeknecht*.

Page 126 [120]:

First line in table, change '12' to 15, and '17' to 20.

Tenth line in table, for 'Mimisa' read *Mimesa*.

Sixth line from bottom of table, change both numerals '11' to 10.

Page 127 [121]:

Twenty-second line from top of table (numerals opposite 'Ectthrodoca'), change '2' to 1, and '3' to 2.

Between 'Spanoctecnus' and 'Dallatorrea' (thirty-first and thirty-second lines from top), insert *Eclytus* 1 [new], and 1 [total].

Twentieth line from bottom, for 'Microplectus' read *Microplectron*.

Page 128 [122]:

Fourth line in table, for 'Enizemon' read *Enizemum*.

Fifth line in table, numerals after 'Homotropus'; change '2' in both columns to 1.

Nineteenth line in table, for 'Enicospelus' read *Enicospilus*.

Last line in table, change numerals after 'Cephaleia' in both 'old' and 'total' columns from '2' to 1.

Page 129 [123]:

Sixth line from bottom of table, change numerals after 'macrophyta' from '2' to 1.

Fifth line from bottom of table, change numerals after 'Tenthreda' from '13' to 12.

Fourth line from bottom of table, for 'Allanthus' read *Allantus*.

Last line in table, change '134' to 133, '201' to 210, and '335' to 333.

First line beneath table, change '183' to 184.

Second line beneath table, change '335' to 333, and '201' to 200.

Page 142 [136], fourteenth line from top, for 'Proctotypes' read *Proctotrypes*.

Page 149 [143], sixteenth line from bottom, after 'Chalcidoidea' add *Ashmead*.

Page 166 [160], insert above sixth line from bottom, *Genus Platylabus*.

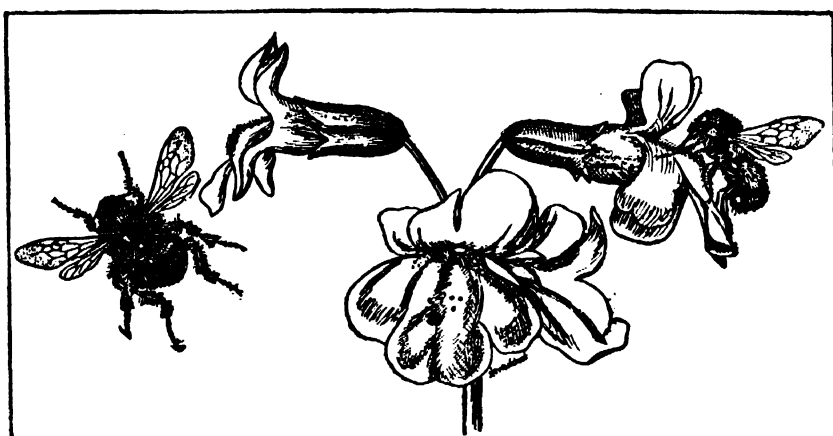
Page 231 [225], eleventh line from top, insert, before heading 'Zootrephes Förster,' the word *Genus*.

Page 246 [240], second line from top, insert, before heading 'Catastenus Förster,' the word *Genus*.

Page 258 [252], name of tribe should read *Exothecinae*.

Page 261 [255], fourth line from bottom, insert, before heading 'Paraselandria Ashmead,' the word *Genus*.

EDITOR.



HYMENOPTERA OF ALASKA

BY WILLIAM HARRIS ASHMEAD

CONTENTS:

Introduction	123
Systematic account.	129
Heterophaga:	
I. Apoidea	129
II. Sphcicoidea	137
III. Vespoidea	140
IV. Formicoidea	147
V. Proctotrypoidea	142
VI. Cynipoidea	147
VII. Chalcidoidea.	149
VIII. Ichneumonoidea.	154
Phytophaga:	
IX. Siricoidea	259
X. Tenthredinoidea.	260

INTRODUCTION.

ALASKA has long been a *terra incognita* to the Hymenopterologist. Up to the year 1899, the date of the Harriman Expedition, less than 30 species of Hymenoptera were known from this vast territory.

In this paper 335 species are recorded, of which number 201 are regarded as new to science and are here first described.

Of the 10 superfamilies, into which the order is now divided, all are represented in Alaska and are distributed into 29 families and 183 genera. Two of these genera, *Dallatorrea* and *Hyposyntactus* are new, and of the remainder, thirty have not been previously reported from North America.

This sudden and great increase of our knowledge in this field, in so short a time, is due mainly to the Harriman Expedition and to its indefatigable collector, Professor Trevor Kincaid.

The distribution of some of the species taken is most interesting. Four species, namely, *Lissonotus ruficoxis* Schmiedeknecht, *Triclistus curvator* Fabricius, *Alysia manducator* Panzer and *Ichneutes reunitor* Nees, are European, and three of them have not before been reported from North America. The last two mentioned are, however, widely distributed over Europe from the Arctic to the Mediterranean, and will doubtless be found to occur in Asia also. *Alysia manducator* is parasitic upon dipterous larvæ (*Muscidæ*), while *Ichneutes reunitor* destroys the willow saw-flies (*Nematidæ*).

Two bumble bees, *Bombus pleuralis* Nylander and *B. melanopygus* Nylander are Asiatic occurring in Siberia. *Bombus moderatus* Cresson is also recorded from Bering Island off the coast of Asia. Others of the bees taken occur in British Columbia, Hudson Bay Territory and in some parts of the northwestern States, *i. e.*, Washington, Oregon, California and Utah; only a few extend their range into the mountains of New Mexico, Idaho, and Colorado. A similar distribution is observed in some of the Sphecoidea and Vespoidea.

The ant, *Myrmica lævinodis* Nylander is found in Europe and in Asia—Turkestan and Siberia; and another species, *Lasius niger* Linné, is found in Europe, northern Africa, Japan and Asia.

In the Ichneumonidea and the Tenthredinoidea, many of the known species have a wide distribution throughout the Boreal Zone, *i. e.*, British Columbia, Canada and the northern United States. Very few are found in the Austral region and these occur principally in the Transition Zone; while still fewer are

known from the Upper Austral Zone, all being common species with a wide distribution, namely, *Metacælus lævis* Cr., *Ophion bilineatum* Say, *Enicospilus purgatus* Say, *Dolcrus aprilis* Norton, etc.

The results of the collection in this order, made by the Harriman Expedition, are therefore most surprising considering that nearly all were taken in the coastal region, within the brief period of two months, between the first of June and the first of August. They fully demonstrate that this gold-bearing country is as rich in representatives of this order as any other similar region of boreal America; and they make it highly probable that when the interior of Alaska has been thoroughly exploited, a large majority of the species occurring in the Boreal Zone (British Columbia, Upper Canada and in the higher altitudes of the United States) will be found.

In this contribution towards the results of the Expedition I have also included, with the permission of Dr. C. Hart Merriam, editor of the papers of the expedition, all known Hymenoptera from Alaska and have incorporated all unstudied Alaskan material in the National Museum with the threefold object of (*a*) giving the results of the Harriman Expedition, (*b*) describing the new species in the National Museum, and (*c*) giving a complete list of Alaskan Hymenoptera, for the benefit of students and for the guidance of future expeditions, so that special efforts may be made to collect in families and genera not yet reported from Alaska.

I congratulate Mr. Harriman upon the splendid results obtained by his expedition and the National Museum in being made the depository of the rich collections made in the classes Insecta and Arachnida—the finest ever made in Alaska.

The arrangement of the families and genera is in accordance with the writer's views on the classification of these insects. All species not otherwise credited were received from the Harriman Expedition. It should also be noted that the specimens credited to the Fur Seal Commission, with few exceptions, were also collected by Professor Kincaid.

The following is a systematically arranged summary of the results:

**TABULAR EXHIBIT SYSTEMATICALLY ARRANGED OF ALASKAN
HYMENOPTERA.**

Superfamilies.	Families.	Genera.	Number of Species.			
			Old.	New.	Total.	
Apoidea	Bombidæ	Bombus	12	5	17	
	Psithyridæ.....	Psithyrus	1	1	2	
	Andrenidæ.....	Andrena	1	...	1	
Sphecoidea	Crabronidæ	Ectemnius	1	...	1	
		Clytochrysus.....	1	...	1	
		Thyreopus	1	...	1	
		Blepharipus	1	...	1	
		Dolichocrabro ....	...	1	1
	Pemphredonidæ ...	Passalæcus.....	1	...	1	
		Mimisa	1	...	1	
		Arachnophila.....	1	...	1	
		Vespa.....	2	...	2	
		Odynerus.....	1	...	1	
Formicoidea	Chrysididæ	Omalus.....	1	...	1	
	Myrmicidæ	Myrmica.....	3	...	3	
		Leptothorax.....	1	...	1	
Proctotrypoidea. ...	Formicidæ	Formica	1	...	1	
		Lasius.....	1	...	1	
	Proctotrypidæ.....	Proctotrypes....	...	1	1	
	Belytidæ	Zelotypa .....	...	3	3
		Aclista	1	...	1	
		Zagota	1	...	1	
	Diapriidæ	Spilomicrus.....	...	1	1	
		Ceraphronidæ	Lygocerus	1	1
		Figitidæ	Tetrarhapta.....	...	1	1
	Cynipoidea.....	Eucoela.....	Eucoela.....	...	1	1
Alloxysta .....			...	1	1
Torymidæ.....			Torymus.....	1	...	1
Miscogasteridæ....		Terobia.....	...	1	1	
Pteromalidæ		Eutelus .....	...	1	1
Eulophidæ		Tetrastichus.....	...	2	2	
		Elachistus.....	...	1	1	
		Eulophus .....	...	1	1
Ichneumonoidea ...		Ichneumonidæ.....	Automalus	1	1
			Stenichneumon....	...	1	1
	Ichneumon.....		3	7	10	
	Melanichneumon..		...	1	1	
	Cratichneumon....		...	5	5	
	Probolus.....		...	1	1	
	Platylabus		2	...	2	
	Centeterus.....		...	1	1	
	Eriplatys.....		...	1	1	
	Xestophya .....		...	2	2
	Asynocrita.....		1	...	1	
	Exolytus.....		1	11	12	
	Atractodes .....		...	1	1
	Stibeutes		1	...	1	
	Stiboscopus .....		...	6	6
	Bathymetis .....		...	11	11
	Plectocryptus.....		...	2	2	
	Microcryptus.....		...	2	2	
	Plesiognathus.....		...	1	1	
	Hedylus		2	...	2	
	Bachia.....		1	...	1	

**TABULAR EXHIBIT SYSTEMATICALLY ARRANGED OF ALASKAN
HYMENOPTERA.—Continued.**

Superfamilies.	Families.	Genera.	Number of Species.		
			Old.	New.	Total.
Ichneumonoidea ...	Ichneumonidæ	Spinolia .....	...	1	1
		Acrolyta .....	...	2	2
		Thestis .....	...	1	1
		Aclastus .....	...	1	1
		Habromma .....	...	1	1
		Algina .....	...	1	1
		Ænoplex .....	...	1	1
		Philonygus .....	...	2	2
		Ilapinastes .....	...	1	1
		Isochresta .....	...	1	1
		Thaumatotypus ...	1	...	1
		Theroscopus .....	...	3	3
		Pezomachus	1	2	3
		Cryptoideus .....	...	1	1
		Himertosoma .....	...	1	1
		Lampronota	1	...	1
		Phytodietus .....	...	2	2
		Trevoria .....	...	1	1
		Lissonota	1	1	2
		Pimplopterus .....	...	2	2
		Harrimaniella .....	...	1	1
		Ecthrodoca	2	1	3
		Rhyssa .....	...	1	1
		Pimpla .....	...	1	1
		Epiurus .....	...	2	2
		Glypta .....	...	2	2
		Holcostizus	1	...	1
		Odontomerus	1	...	1
		Cubocephalus .....	...	3	3
		Xylonomus	1	...	1
		Spanoctecnus .....	...	1	1
		Dallatorrea .....	...	1	1
		Hypocryptus .....	...	5	5
		Mesoleptus .....	...	1	1
		Micropectus .....	...	1	1
		Cteniscus	1	1	2
		Diaborus .....	...	2	2
		Erromenus .....	...	1	1
		Monoblastus .....	...	1	1
		Polyblastus .....	...	1	1
		Scorpiorus .....	...	2	2
		Trematopygus .....	...	1	1
		Cosmoconus	1	...	1
		Tryphon .....	...	1	1
		Tryphoctonus .....	...	1	1
		Sychnoortus .....	...	1	1
		Tlemon .....	...	1	1
		Polyterus .....	...	1	1
		Hyposyntactus .....	...	1	1
		Calliphirus .....	...	10	10
		Gemophaga .....	...	1	1
		Mesoleius	2	...	2
		Bassus	1	...	1
		Promethes .....	...	1	1

Note: New genera in black face type.

**TABULAR EXHIBIT SYSTEMATICALLY ARRANGED OF ALASKAN
HYMENOPTERA.—Continued.**

Superfamilies.	Families.	Genera.	Number of Species.		
			Old.	New.	Total.
Ichneumonoidea ...	Ichneumonidæ	Bioblapsis.....	...	1	1
		Zootrepbes .....	...	1	1
		Phthorina .....	...	1	1
		Enizemon.....	1	...	1
		Homotropus .....	...	2	2
		Synoplus .....	...	2	2
		Hypoleptus .....	...	2	2
		Neuroteles .....	...	1	1
		Deleter .....	...	2	2
		Tapinops.....	1	...	1
		Atmetus.....	1	...	1
		Orthocentrus.....	...	1	1
		Phænosemus.....	...	1	1
		Stenomacrus.....	1	...	1
		Camarotops .....	...	1	1
		Triclistus	1	...	1
		Metacælus	1	...	1
		Ophion	1	...	1
		Enicospelus	1	...	1
		Atrometus .....	...	1	1
		Campoplex.....	1	...	1
		Zachresta .....	...	2	2
		Phædroctonus.....	...	1	1
		Olesicampa .....	...	1	1
		Hypothereutes .....	...	1	1
		Ischnoscopus .....	...	1	1
		Limnerium.....	...	1	1
		Ameloclonus.....	...	1	1
		Paniscus.....	...	1	1
		Mesochorus	1	2	3
		Isurgus .....	...	1	1
		Catastenus.....	1	1	2
		Plectiscus.....	...	1	1
	Alysiidæ.....	Alysia.....	1	...	1
		Anarcha .....	...	1	1
		Delocarpa .....	...	1	1
		Rhizarcha .....	...	1	1
		Gyrocampæ.....	...	1	1
	Braconidæ.....	Liposcia .....	...	1	1
		Praon.....	...	1	1
		Aphidius.....	...	4	4
		Dyscoletes.....	...	1	1
		Chelonus	1	...	1
		Protapanteles .....	...	3	3
		Apanteles.....	...	1	1
		Microplitis.....	...	1	1
		Ichneutes	1	2	3
		Desmiostoma.....	...	1	1
		Macrodyctium.....	...	1	1
		Exothecus.....	...	1	1
		Rhogas .....	...	1	1
		Sirex	1	...	1
Siricoidea.....	Siricidæ.....	Itycorsia.....	1	...	1
Tenthredinoidea...	Lydidæ	Cephaleia.....	2	...	2

TABULAR EXHIBIT SYSTEMATICALLY ARRANGED OF ALASKAN
HYMENOPTERA.—*Continued.*

Superfamilies.	Families.	Genera.	Number of Species.		
			Old.	New.	Total.
Tenthredinoidea ...	Lydidae.....	Batroceros.....	...	1	1
		Fenusia.....	1	...	1
	Selandriidae.....	Erythraspides.....	1	...	1
		Monophadnus.....	1	...	1
		Paraselandria.....	1	...	1
		Pœcilstomidea ...	1	...	1
		Pachynematus.....	6	...	6
	Nematidae.....	Nematus.....	2	...	2
		Pristiphora.....	6	...	6
		Euura.....	1	...	1
		Pontania.....	8	...	8
		Pteronus.....	3	...	3
		Amauronematus...	1	...	1
		Dolerus.....	4	...	4
		Emphytus.....	1	...	1
		Pachyprotasis.....	1	...	1
		Macrophya.....	2	...	2
	Tenthredinidae.....	Tenthredo.....	3	...	13
		Allanthus.....	1	...	1
		Cimbex.....	1	...	1
		Trichiosoma.....	2	...	2
		Cimbicidae.....			
	Total.....		134	201	335

Thus it appears that 10 superfamilies, 29 families, 183 genera (2 being new) and 335 species (201 being new) are now known from Alaska.

SYSTEMATIC ACCOUNT.

Suborder **HETEROPHAGA** Ashmead.

Superfamily I. **APOIDEA** Ashmead.

Family **BOMBIDÆ**.

Genus **Bombus** Latreille.

BOMBUS MODERATUS Cresson.

Bombus modestus CRESSON, Proc. Ent. Soc. Phil., II, p. 99, ♀ (nec *modestus* Smith), 1863.

Bombus moderatus CRESSON, Proc. Ent. Soc. Phil., II, p. 109, 1863.—CRESSON, Syn. Hym. North America, p. 308, 1897.—ASHMEAD, Fur Seals and Fur Seal Islands, IV, p. 336, 1899.

Bombus terricola var. *modestus* HANDLIRSCH, Ann. Hofmus. Wien, III, p. 234, 1888. DALLA TORRE, Cat. Hym., x, p. 558, 1896.

Type in collection of the American Entomological Society. From Kodiak, July 20. One female, six workers.

I cannot agree with Herr Handlirsch, of the Hofmuseum, Vienna, Austria, who has reduced this species to a variety of *B. terricola* Kirby, with which it is not even closely allied.

BOMBUS CALIFORNICUS Smith.

Bombus californicus SMITH, Cat. Hym. Brit. Mus., II, p. 400, ♀♂, 1854.—CRESSON, Proc. Ent. Soc. Phil., II, p. 97, ♂ & ♀, 1863.—CRESSON, Trans. Am. Ent. Soc., VII, p. 230, 1879.—CRESSON, Syn. Hym. North America, p. 307, 1887.—HANDLIRSCH, Ann. Hofmus. Wien, III, p. 243, 1888.—DALLA TORRE, Cat. Hym., x, p. 513, 1896.

Bombus vosnesenski RADOSZKOWSKI, Bull. Soc. Nat. Moscou, xxxv, p. 589, T. 6, f. 2, 1863.

Bombus flavifrons SMITH, Lord's Naturalist in Vanc. Isl., II, p. 34, 1866.

Bombus columbicus DALLA TORRE, Cat. Hym. Wien. Ent. Zeitg., IX, p. 139, 1890.

Type in British Museum. From Sitka (*teste* Handlirsch).

BOMBUS NEVADENSIS Cresson.

Bombus pennsylvanicus CRESSON, Proc. Ent. Soc. Phila., II, p. 94, ♂ (*nec* De Geer), 1863.

Bombus nevadensis CRESSON, Trans. Am. Ent. Soc., v, p. 102, ♀♂, 1874.—CRESSON, Rep. Geogr. & Geol. Surv. 100th merid., v, p. 728, Pl. 34, f. 5, 1875.—CRESSON, Syn. Hym. North Am., p. 308, 1887.—HANDLIRSCH, Ann. Hofmus. Wien, III, p. 245, T. 10, f. 3, II, 1888.—DALLA TORRE, Cat. Hym., x, p. 538, 1896.

Type in collection of the American Entomological Society. From Alaska (U. S. Coast and Geodetic Survey), Nevada, Utah, Colorado.

BOMBUS PROXIMUS Cresson.

Bombus proximus CRESSON, Proc. Ent. Soc. Phila., II, p. 98, ♀, 1863.

Bombus howardii var. *proximus* CRESSON, Trans. Am. Ent. Soc., VII, p. 231, 1879.—CRESSON, Syn. Hym. North Am., p. 308, 1887.

Bombus terricola var. *proximus* HANDLIRSCH, Ann. Hofmus. Wien, III, p. 234, 1888.—DALLA TORRE, Cat. Hym., x, p. 559, 1896.

Type in collection of the American Entomological Society. From Alaska (U. S. Coast and Geodetic Survey).

· BOMBUS NEGLECTULUS sp. nov.

Female.—Length 17 mm. Black and clothed with a black pubescence, except as follows: The anterior portion of the thorax above, and a small spot just in front of the tegulæ are clothed with a pale yellowish pubescence; the scutellum has two tufts of yellowish pubescence but mixed with black hairs on their inner margins, while the third dorsal abdominal segment at apex and *laterally*, and the fourth entirely are clothed with a fulvo-rufous pubescence.

The head is clothed with a black pubescence; the malar space is long, nearly one-half the length of the eyes; the second joint of the flagellum is much shorter than the first, or the third, and scarcely longer than thick; while the wings are blackish fuscous, the tegulae piceous, impunctate.

Worker.—Length 13 mm. Agrees well with the female in color, except that the head has a tuft of yellowish hairs on the vertex and on the face, while the mesopleura are also yellowish. The fulvo-rufous pubescence on abdominal segments 3 and 4 is confined entirely to the lateral margins, the median portion of the segments being bare and shining, while the fifth segment also has a small tuft of fulvo-rufous hairs at its extreme lateral margins.

Male.—Unknown.

Type.—Cat. No. 5718, U. S. Nat. Museum. From Alaska (U. S. Coast and Geodetic Survey).

In the collection of the American Entomological Society is a single worker agreeing well with the female, except in its smaller size, and labelled *Bombus howardii* Cresson, Silver Lake, Utah, July 16.

This species comes evidently nearest to *B. medius* Cresson and *B. dubius* Cresson, but is easily separated from both by the difference in the color of the scutellum and abdomen, and by the longer malar space.

BOMBUS MCKAYI sp. nov.

Female.—Length 19 mm. Black, clothed with a black pubescence, the middle of the face below the antennae, thorax above anteriorly, scutellum posteriorly and the third, fifth and sixth dorsal segments of abdomen clothed with a pale yellowish-white pubescence, the black pubescence of the second segment overlaps the base of the third and the black pubescence of the fourth segment overlaps the base of the fifth or the hairs are white at apex.

The head seen from in front, is a little longer than wide, the malar space being distinct, rather long, as long as the pedicel and first joint of the flagellum united; the forehead, between the ocelli and base of the antennae is distinctly punctate; the ocelli are pale and arranged almost in a straight line; while the wings are fuscous with the tegulae and the veins black. Legs black, with a small spot of hairs at apex of front and middle tibiae before and behind, and the hind tibiae before and behind fringed with fulvous hairs. The antennae are broken off at tips but the joints of the flagellum remaining are as follows: The first joint is the longest, obconical, a little longer than the third or fourth, which are equal in length and a little longer than the second.

Type.—Cat. No. 5719, U. S. Nat. Museum. From Nushagak River (Chas. W. McKay). Received through U. S. Dept. Agric.

BOMBUS COUPERI Cresson.

Bombus couperi CRESSON, Proc. Acad. Nat. Sci. Phila., p. 185, ♀, 1878.—CRESSON, Syn. Hym. North Am., p. 307, 1887.—DALLA TORRE, Cat. Hym., x, p. 515, 1896.

Type in collection of the American Entomological Society. Popof Island, July 2, 4; Seldovia, July 7; Nushagak River (Chas. W. McKay). All sexes are represented.

BOMBUS OREGONENSIS Cresson.

Bombus oregonensis CRESSON, Proc. Acad. Nat. Sci. Phila., p. 185, ♂, 1878.—CRESSON, Syn. Hym. North Am., p. 308, 1887.—DALLA TORRE, Cat. Hym., x, p. 538, 1896.

Type in collection of the American Entomological Society. Fox Point, July 20; Kodiak, July 20; Juneau, July 25; Seldovia, July 26; Popof Island, July 4.

BOMBUS FRIGIDUS Smith.

Bombus frigidus SMITH, Cat. Hym. Brit. Mus., II, p. 399, ♀ ♂, 1854.—CRESSON, Proc. Ent. Soc. Phila., II, p. 100, ♀ ♂, 1863.—PROVANCHER, Add. Fn. du Can. Hym., p. 341.—DALLA TORRE, Cat. Hym., x, p. 521, 1896.

Bombus carriei GREENE, Ann. Lyc. Nat. Hist. New York, VII, p. 170, 1860.

Type in British Museum. From Kukak Bay, July 4.

This species is found in Arctic America, Hudson Bay Territory, throughout British Columbia to Vancouver Island and in some high altitudes in the United States—mountains of Colorado and New Mexico.

BOMBUS SITKENSIS Nylander.

Bombus sitkensis NYLANDER, Notis Saellsk. faun. et fl. Fenn. Förh., I [Adnot.], p. 235, ♀ ♂, 1848.—CRESSON, Proc. Ent. Soc. Phila., II, p. 102, ♀ ♂, 1863.—DALLA TORRE, Ber. naturw. mediz., Ver. Innsbr., XII, p. 11, ♂, 1882.—CRESSON, Syn. Hym. North Am., p. 309, 1887.—HANDLIRSCH, Ann. Hofmus. Wien, III, p. 232, 1888.—DALLA TORRE, Cat. Hym., x, p. 549, 1896.—ASHMEAD, Fur Seals and Fur Seal Islands, IV, p. 336, 1899.

Bombus prunella COCKERELL, Ann. & Mag. Nat. Hist. (7), VI, p. 391, 1899.

Kukak Bay, July 4. Siberia: Bering Island (Dr. L. Stejneger); Copper Island (Barrett-Hamilton). New Mexico (T. D. A. Cockerell); White Mts.

BOMBUS NEARTICUS Handlirsch.

Bombus nearticus HANDLIRSCH, Ann. Hofmus. Wien., III, p. 243, ♀ & ♂, 1888.

Type in Hofmuseum, Vienna. From Juneau, July 25; Wrangell (H. F. Wickham). Occurs also in Canada, Idaho and California.

BOMBUS GELIDUS Cresson.

Bombus gelidus CRESSON, Proc. Acad. Nat. Sci. Phila., p. 184, ♀, 1878.

Bombus melanopygus HANDLIRSCH (*nec* Nylander), Ann. Hofmus. Wien, III, p. 231, 1888.—DALLA TORRE, Cat. Hym., X, p. 533, 1896.

Bombus kincaidii COCKERELL, Ann. & Mag. Nat. Hist. (7), II, p. 324, ♀ & ♂, 1898.

Type in collection of the American Entomological Society.

From Aleutian Islands (Cresson); Pribilof Islands (Kincaid). Dr. Henry Skinner has kindly sent me the type of this species for examination, and Professor Cockerell's *B. kincaidii* proves to be identical with it.

BOMBUS POLARIS Curtis.

Bombus polaris CURTIS, Ross's 2d Voy., App., p. lxiii, ♀ & ♂, 1831.—ERICHSON, Arch. f. Naturg., I, p. 288, 1836.—SMITH, Cat. Hym. Brit. Mus., II, p. 397, ♀, 1854.—CRESSON, Proc. Ent. Soc. Phila., II, p. 101, 1863.—MACLACHLAN, Journ. Linn. Soc. Zool., XIV, p. 106, 1877.—DALLA TORRE, Cat. Hym., X, p. 540, 1896.

Type in British Museum. From Kodiak, July 20; Seldovia, July 25.

BOMBUS PLEURALIS Nylander.

Bombus pleuralis NYLANDER, Notis. Saellsk faun. et fl. Fenn. Förh., I [Adnot.] p. 231, ♀ & ♂, 1848.—CRESSON, Proc. Ent. Soc. Phila., II, p. 96, ♀ & ♂, 1863.—DALLA TORRE, Cat. Hym., X, p. 540, 1896.

From Popof Island, July 8, 9, 11; Kodiak, July 20. Also found in Siberia.

BOMBUS SYLVICOLA Kirby.

Bombus sylvicola KIRBY, Faun. Bor.-Amer., IV, p. 272, 1837.—CRESSON, Proc. Ent. Soc. Phila., II, p. 106, ♀, 1863.—CRESSON, Syn. Hym. North Am., p. 309, 1887.—DALLA TORRE, Cat. Hym., X, p. 548, 1896.

Bombus gelidus COCKERELL (*nec* CRESSON).

Type in British Museum. From Kukak Bay, July 4; Popof Island, July 9; Seldovia, July 21; Unalaska, August 27.

BOMBUS JUXTUS Cresson.

Bombus juxtus CRESSON, Proc. Acad. Nat. Sci. Phila., p. 187, ♀, 1878.—CRESSON, Syn. Hym. North Am., p. 308, 1887.

Bombus flavifrons HANDLIRSCH (*nec* Cresson), Ann. Hofmus. Wien, III, p. 231, 1888.—DALLA TORRE, Cat. Hym., X, p. 520, 1891.

Bombus parvulus COCKERELL.

Type in collection of the American Entomological Society. From Kukak Bay, July 4; Matlakatla; Nushagak River (Chas. W. McKay); Wrangell (H. F. Wickham).

BOMBUS MELANOPYGUS Nylander.

Bombus melanopyge NYLANDER, Notis. Saellsk. faun. et fl. Fenn. Förh. I [Adnot.], p. 236, ♀, 1848.—CRESSON, Proc. Ent. Soc. Phila., II, p. 103, 1863.—CRESSON, Syn. Hym. North Am., p. 308, 1887.

Bombus menestriesii RADOSKOWSKI, Bull. Soc. Natur. Moscou, xxxii, p. 843, ♂ ♀, Pl. 5, f. 6, 1859.

Bombus melanopygus HANDLIRSCH, Ann. Hofmus. Wien, III, p. 251, 1888.—DALLA TORRE, Cat. Hym., x, p. 533, 1896.

Bombus lacustris CRESSON, Proc. Ent. Soc. Phila., II, p. 103, 1863.—CRESSON, Syn. Hym. North Am., p. 308, 1887.—PROVANCHER, Add. Fn. Hym., p. 340, 1888.

? *Bombus ternarius* var. *lacustris* HANDLIRSCH, Ann. Hofmus. Wien, III, p. 251, 1888.—DALLA TORRE, Cat. Hym., x, p. 533, 1896.

Type of *lacustris* Cresson, in collection of the American Entomological Society. From Berg Bay, June 10; Juneau, June 7, July 25; Kodiak, July 20; Seldovia, July 21; Wrangell (H. F. Wickham); Seward Peninsula (W. J. Peters); Sitka (Fur Seal Commission).

This species is also common in Vancouver Island, B. C.

The type of *Bombus lacustris* Cresson was submitted to me for examination, together with other of Cresson's types of humble bees, by Dr. Henry Skinner, Curator of the American Entomological Society, and it is undoubtedly identical with the above species. What Handlirsch describes as *Bombus ternarius* var. *lacustris* is probably a different species.

BOMBUS ALASKENSIS sp. nov.

Female.—Length 17 mm. Resembles *B. melanopygus* Nylander, very closely and with the color of the pubescence almost identical, except that the scutellum is more grayish and the first and second dorsal abdominal segments are clothed with a yellowish pubescence, the third and fourth red or fulvo-rufous, the fifth and sixth black.

Worker.—Length 12 to 13 mm. Colored as in female and practically the same except in being much smaller.

Male.—Unknown.

Type.—Cat. No. 5720, U. S. Nat. Museum. From Sitka, June 16; Fox Point, July 20.

BOMBUS MIXTUOSUS sp. nov.

Female.—Length 14 mm. Mesopleura and dorsal abdominal seg-

ments 1 and 2 clothed with a yellowish pubescence, that on the two basal segments is very sparse or interrupted medially; the last three abdominal segments with very sparse, pale yellowish hairs; thorax above medially and on the scutellum with a grayish pubescence, the anterior part of the thorax with yellow hairs well intermixed with black, very much as in *B. melanopygus* Nylander; dorsal abdominal segments 3 and 4 with a black pubescence but usually (though not invariably) interrupted by a narrow fringe of yellowish hairs extending from the apex of the second; ventral segments fringed with a sparse pale pubescence; face with a yellowish pubescence more or less mixed with black hairs; legs with a long yellowish hair fringe, that on the femora *beneath* is usually mixed more or less, with black hairs. Malar space a little longer than wide. First joint of flagellum a little longer than the third, the second hardly longer than thick and only about two-thirds the length of the third.

Worker.—Length (major) 12 mm.; (minor) 7.5 to 10 mm. Both colored as in female, except that the pubescence on the face in the worker minor is black or with only a few whitish hairs intermixed with the black.

Male.—Unknown.

Type.—Cat. No. 5721, U. S. Nat. Museum. From Popof Island, June 21; Yakutat, June 21; Virgin Bay, June 21; Fox Point, July 20.

BOMBUS DIMIDIATUS sp. nov.

Female.—Length 12 mm. Mesopleura, the anterior part of the thorax above, the apex of scutellum and the dorsal abdominal segments 1 and 2 clothed with a pale yellowish pubescence that on the pleura is nearly white, on the anterior part of the thorax and the scutellum mixed with black hairs on dorsal segments 1 and 2 interrupted by a bare space medially; otherwise, except some pale hairs on the middle of the face and the apical fringe on the ventral segments, the pubescence is black. Wings fuscous. Malar space about one-third the length of the eye. First joint of flagellum nearly as long as 2 and 3 united, the second shorter than the third, not longer than wide. Occasionally the black hairs on the apex of the third and fourth dorsal segments of abdomen are well mixed with fulvo-rufous hairs, having the appearance of two red lines across the black pubescence.

Worker.—Length 9 mm. Agrees in color with the female (or? worker major), except that the face is usually black or with only a small tuft of pale hairs between and extending below the insertion of the antennæ.

Male.—Unknown.

Type.—Cat. No. 5722, U. S. Nat. Museum. From Fox Point, July 28; Wrangell (H. F. Wickham).

The female described above may really be the worker major, for many of our bumble bees have two forms of workers—a worker *major* and a worker *minor*.

Family PSITHYRIDÆ.

Genus *Psithyrus* Lepeletier.

PSITHYRUS INSULARIS (Smith).

? *Bombus interruptus* GREENE, Ann. Lyc. Nat. Hist. New York, VII, p. 11, ♀, 1858.—GREENE, op. cit., VII, p. 193, 1860.

? *Bombus suckleyi* GREENE, Ann. Lyc. Nat. Hist. New York, VII, p. 173, ♂, 1860.

Apathus insularis SMITH, Journ. Ent., I, p. 155, ♀, 1861.—CRESSON, Proc. Ent. Soc. Phila., II, p. 113, ♀♂, 1863.—PROVANCHER, Add. Fn. du Can. Hym., p. 343, ♀♂, 1888.

Psithyrus insularis HANDLIRSCH, Ann. Hofmus. Wien, III, p. 248, 1888.

Psithyrus interruptus DALLA TORRE, Cat. Hym., x, p. 569, 1896.

Type in British Museum. From Berg Bay, June 10; Sitka, July 16; Juneau, July 25; Seldovia, July 7; and Nushagak River, July 27, 1881 (Chas. W. McKay).

PSITHYRUS KODIAKENSIS sp. nov.

(Pl. IX, fig. 1.)

Male.—Length 14 mm. The tegument of this species, except the disk of the mesonotum and the base of the scutellum where the pubescence is thin, and the first and second segments of the abdomen, which are brown, is entirely black. The head, except a tuft of ochraceous pubescence on the face below the insertion of the antennæ and on the vertex posteriorly, is clothed with a black pubescence; thorax above and at sides, dorsal abdominal segments 1 and 2, the venter and the legs clothed with a rather long ochraceous pubescence; dorsal abdominal segments 2 to 7 with a black pubescence and in striking contrast with the ochraceous pubescence of the basal segments.

The head seen from in front is much longer than wide, the malar space long, smooth and shining and fully as long as the pedicel and first two joints of the flagellum united; the clypeus, except anteriorly, is punctate; the labrum is feebly transversely impressed, sparsely punctate, except the lateral hind angles, which are polished and impunctate; the first joint of the flagellum is shorter than the third but longer than

the second, the latter being only about two-fifths the length of the third and the shortest joint, while the last joint is compressed and a little shorter than the third.

Type.—Cat. No. 5723, U. S. Nat. Museum. From Kodiak, July 20. Two specimens.

Family ANDRENIDÆ.

Genus *Andrena* Latreille.

ANDRENA FRIGIDA Smith.

Andrena frigida SMITH, Cat. Hym. Brit. Mus., 1, p. 115, ♀, 1853.—PROVANCHER, Nat. Can., XIII, p. 195, 1882.—PROVANCHER, Fn. ent. du Can. Hym., p. 795, 1883.—CRESSON, Syn. Hym. North Am., p. 293, 1887.—DALLA TORRE, Cat. Hym., x, p. 125, 1896.

Male.—Length 8 mm. Black, clothed with a long sparse whitish pubescence; tarsi with a dark rufo-piceous tinge beneath; mandibles long, decussate and with a prominent process beneath at base, head transverse wider than the thorax, viewed from above obtrapezoidal, the occiput rather broadly concave, the temple much broadened below and, as seen from the side, forming an acute angle with the base of the mandibles; malar space very short; face rather closely punctate, the vertex between the eyes and the lateral ocelli and towards the base of the antennæ longitudinally aciculate, the temples shining although faintly coriaceous; thorax above opaque, alutaceous, impunctate; metathorax finely coriaceous without vestige of carinæ. Wings hyaline, the stigma and veins brown, the tegulæ piceous. Abdomen long oval, a little longer than the head and thorax united, apparently smooth and shining, but with a strong lens exhibiting numerous microscopic transverse lineations, the first and second dorsal segments clothed with long whitish hairs, the hairs on the following segments sparser and confined more particularly to the lateral margins.

Type *female* in British Museum, *male* in U. S. Nat. Museum. From Muir Inlet, June 11; Sitka, June 16.

Superfamily II. SPHECOIDEA Ashmead.

Family CRABRONIDÆ.

Subfamily *CRABRONINÆ*.

Genus *Ectemnius* Dahlbom.

ECTEMNIUS PARVULUS (Packard).

Crabro parvulus PACKARD, Proc. Ent. Soc. Phila., vi, p. 108, ♀, 1867.—CRESSON, Syn. Hym. North Am., p. 285, 1887.—Fox, Trans. Am. Ent.

Soc., XXII, p. 142, ♀♂, 1895.—DALLA TORRE, Cat. Hym., VIII, p. 616, 1896.

Ectemnius parvulus ASHMEAD, Can. Ent., XXXI, p. 173, 1899.—KINCAID, Proc. Wash. Acad. Sci., II, p. 508, 1900.

From Seldovia, July 21. The species is also found in Washington, Oregon, Nevada, South Dakota and Colorado.

Genus *Clytochrysus* Morawitz.

CLYTOCHRYsus GRACILISSIMUS (Packard).

Crabro contiguus CRESSON, Proc. Ent. Soc. Phila., IV, p. 484, ♂ (nec ♀), 1865.

Crabro gracilissimus PACKARD, Proc. Ent. Soc. Phila., VI, p. 78, ♂, 1867.—CRESSON, Syn. Hym. North Am., p. 285, 1887.—FOX, Trans. Am. Ent. Soc., XXII, p. 144, ♀♂, 1895.—DALLA TORRE, Cat. Hym., VIII, p. 603, 1897.

Clytochrysus gracilissimus ASHMEAD, Can. Ent., XXXI, p. 174, 1899.—KINCAID, Proc. Wash. Acad. Sci., II, p. 508, 1900.

From Fox Point, July 28. Occurs also in Colorado.

Subfamily *THYREOPINÆ*.

Genus *Thyreopus* Latreille.

THYREOPUS VICINUS (Cresson).

Crabro vicinus CRESSON, Proc. Ent. Soc. Phila., IV, p. 479, ♀, 1865.—FOX, Trans. Am. Ent. Soc., XXII, p. 170, ♀♂, 1895.—DALLA TORRE, Cat. Hym., VIII, p. 636, 1897.

Crabro succinctus CRESSON, Proc. Ent. Soc. Phila., IV, p. 479, ♂, 1865.

Thyreopus succinctus CRESSON, Syn. Hym. North Am., p. 287, 1887.

Thyreopus vicinus ASHMEAD, Can. Ent., XXXI, p. 217, 1899.—KINCAID, Proc. Wash. Acad. Sci., II, p. 508, 1900.

Type in collection of the American Entomological Society. From Kukak Bay, July 4. Occurs also in Colorado.

Genus *Blepharipus* Lepeletier et Brullé.

BLEPHARIPUS ATER (Cresson).

Crabro ater CRESSON, Proc. Ent. Soc. Phila., IV, p. 477, ♀, 1865; Syn. Hym. North Am., p. 284, 1887.—FOX, Trans. Am. Ent. Soc., XXII, p. 197, ♀♂, 1895.—DALLA TORRE, Cat. Hym., VIII, p. 583, 1897.

Blepharipus ater PACKARD, Proc. Ent. Soc. Phila., VI, p. 374, 1867.—PROVANCHER, Nat. Can., XIII, p. 133, 1882.—PROVANCHER, Fn. ent. du Can. Hym., VIII, p. 667, 1883.—ASHMEAD, Can. Ent., XXXI, p. 217, 1899.—KINCAID, Proc. Wash. Acad. Sci., II, p. 508, 1900.

Type in collection of the American Entomological Society. From Seldovia, July 28. Occurs also in Canada and Colorado.

Genus **Dolichocrabro** Ashmead.**DOLICHOCRABRO WICKHAMI** sp. nov.

Male.—Length 6.5 to 7 mm. Form elongated and narrowed; black and shining; antennal tubercles, a line on front femora and the tarsi, except the last joint, rufo-piceous; tibial spurs whitish; clypeus anteriorly obtusely triangular and clothed with a dense silvery pubescence; flagellum with a fringe of short white hairs beneath; ocelli honey-yellow.

The head and thorax are delicately punctate; a grooved line extends forward from the front ocellus; supraorbital foveæ are indicated by scars above the eyes; the last joint of the antennæ is slightly arcuate and pointed at apex within; pronotum with a median groove or notch; mesonotum with a median longitudinal line on the anterior half and an abbreviated line on each side of it anteriorly; the mesopleural furrow, the furrows of the metathoracic enclosure and its middle furrow are crenate. Wings hyaline, the stigma and veins brown. Abdomen elongate, subcylindrical, about twice the length of the thorax, polished, but the second and third dorsal segments under a strong lens, show fine, close, delicate transverse aciculations.

Type.—Cat. No. 5742, U. S. Nat. Museum. From Wrangell (H. F. Wickham). Two specimens.

Family **PEMPHREDONIDÆ**.Genus **Passalæcus** Shuckard.**PASSALÆCUS CUSPIDATUS** Smith.

Passalæcus cuspidatus SMITH, Cat. Hym. Brit. Mus., IV, p. 427, ♀, 1856.—CRESSON, Syn. Hym. North Am., p. 283, 1883.—CRESSON, Syn. Hym. North Am., p. 283, 1887.—FOX, Trans. Am. Ent. Soc., XIX, p. 321, 1892.—DALLA TORRE, Cat. Hym., VIII, p. 368, 1897.—ASHMEAD, Can. Ent., XXXI, p. 223, 1899.

Type in British Museum. From Wrangell (H. F. Wickham). The species is also found in British Columbia (Hudson Bay Territory) and in Colorado.

Genus **Mimesa** Shuckard.**MIMESA PROPINQUA** Kincaid.

Mimesa propinqua KINCAID, Proc. Wash. Acad. Sci., II, p. 508, ♂, 1900.

Type.—Cat. No. 5314, U. S. Nat. Museum. From Fox Point, July 28.

Superfamily III. **VESPOIDEA** Ashmead.**Family POMPILIDÆ.**Subfamily *POMPILINÆ*.Genus *Arachnophila* Ashmead.¹**ARACIINOPHILA SEPTENTRIONALIS** Kincaid.

Arachnophila (err. imp.) *septentrionalis* KINCAID, Proc. Wash. Acad. Sci., II, p. 509, 1900.

Type.—Cat. No. 5313, U. S. Nat. Museum. From Kukak Bay.

Family VESPIDÆ.Subfamily *VESPINÆ*.Genus *Vespa* Linné.**VESPA MARGINATA** Kirby.

Vespa marginata KIRBY, Faun. Bor.-Amer., IV, p. 265, 1837.—KINCAID, Proc. Wash. Acad. Sci., II, p. 510, 1900.

Vespa arenaria SAUSSURE (*nec* Fabricius), Stettin. ent. Zeitg., XVIII, p. 116, ♀, 1857.—CRESSON, Syn. Hym. North Am., p. 290, 1887.—DALLA TORRE, Cat. Hym., IX, p. 137 (partim), 1894.

From Kukak Bay, July 3.

VESPA BOREALIS Kirby.

Vespa borealis KIRBY, Faun. Bor.-Amer., IV, p. 264, 1837.—SAUSSURE, Etud. fam. Vesp., II, p. 140, 1853.—CRESSON, Syn. Hym. North Am., p. 290, 1887.—KINCAID, Proc. Wash. Acad. Sci., II, p. 510, 1900.

From Sitka, June 15; Virgin Bay.

Family EUMENIDÆ.Genus *Odynerus* Latreille.**ODYNERUS ALBOPHALERATUS** Saussure.

Odynerus (Ancystrocercus) albophaleratus SAUSSURE, Étud. fam. Vesp., III, p. 217, ♂, 1856.—SAUSSURE, Smithsonian Miscell. Collect., XIV, p. 167, 1875.—PROVANCHER, Natur. Can., XIII, p. 140, 1882.—PROVANCHER., Fn. ent. du Can. Hym., p. 675, 1883.—CRESSON, Syn. Hym. North Am., p. 287, 1887.—KINCAID, Proc. Wash. Acad. Sci., II, p. 510, 1900.

From Kukak Bay, July 3; Seldovia, July 21; Fox Point, July 28.

¹ The type of this genus is *Pompilus divisus* Cresson.

Family **CHRYSIDIDÆ**.Genus **Omalus** Panzer.**OMALUS SINUOSUS** (Say).*Hedychrum sinuosum* SAY, Contrib. MacLure Lyc. Phila., p. 82, 1828.—LECONTE, Ed. Say's Works, I, p. 384, 1859.*Hedychrum janus* HALDEMAN, Proc. Acad. Nat. Sci. Phila., p. 53, 1844.*Elampus sinuosus* NORTON, Trans. Am. Ent. Soc., VII, p. 234, 1879.*Elampus purpurascens* PROVANCHER, Nat. Can., XII, p. 303, 1881.—PROVANCHER, Fn. ent. du Can. Hym., p. 582, 1883.*Omalus sinuosus* AARON, Trans. Am. Ent. Soc., XII, p. 214, 1885.—CRESSON, Syn. Hym. North Am., p. 252, 1887.—PROVANCHER, Add. Fn. du Can. Hym., p. 219, 1887.*Elampus sinuosus* MOCSARY, Monogr. Chrysid., p. 103, 1889.—DALLA TORRE, Cat. Hym., VI, p. 17, 1892.

From Fort Yukon (L. M. Turner).

Superfamily IV. **FORMICOIDEA** Ashmead.Family **MYRMICIDÆ**.Genus **Myrmica** Latreille.**MYRMICA LÆVINODIS** Nylander.*Myrmica lævinodis* NYLANDER, Acta Soc. Sc. Fennic ; III, p. 927, ♀ ♂, 1846, Tab. 18, f. 5, 31.—DALLA TORRE, Cat. Hym., VII, p. 110 (Full bibliography), 1893.

From Nushagak River (Chas. W. McKay). Occurs also in Siberia and various parts of the United States.

MYRMICA SABULETI LOBIFRONS Pergande.*Myrmica sabuleti* var. *lobifrons* PERGANDE, Proc. Wash. Acad. Sci., II, p. 321, ♀, 1900.*Type*.—Cat. No. 5279, U. S. Nat. Museum. From Alaska.**MYRMICA SULCINOIDES** Emery.*Myrmica sulcinoides* EMERY, Zool. Jahrb., XI, p. 313, ♀, 1898.—PERGANDE, Proc. Wash. Acad. Sci., II, p. 52, 1900.

From Sitka.

Genus **Leptothorax** Mayr.**LEPTOTHORAX YANKEE** Emery, var. **KINCAIDI** Pergande.*Leptothorax yankee* var. *kincaidi* PERGANDE, Proc. Wash. Acad. Sci., II, p. 520, ♀ ♂, 1900.*Type*.—Cat. No. 5278, U. S. Nat. Museum. From Metlakatla.

Family FORMICIDÆ.

Genus *Formica* Linné.

FORMICA NEORUFIBARBIS Emery.

Formica neorufibarbis EMERY, Zool. Jahrb., XII, p. 660, 1899.—PERGANDE, Proc. Wash. Acad. Sci., II, p. 519, ♂, 1900.

From Kodiak, Metlakatla and Sitka.

Genus *Lasius* Fabricius.

LASIOUS NIGER SITKENSIS Pergande.

Lasius niger var. *sitkensis* PERGANDE, Proc. Wash. Acad. Sci., II, p. 519, ♂, 1900.

Type.—Cat. No. 5277, U. S. Nat. Museum. From Sitka.

Superfamily V. PROCTOTRYPOIDEA Ashmead.

Family PROCTOTRYPIDÆ.

Genus *Proctotypes* Latreille.

PROCTOTRYPES NIGRIPES sp. nov.

Male.—Length 4 mm. Polished black; legs brown-black, with the tarsi and articulations rufo-piceous; tegulæ pale honey-yellow. Wings hyaline, without any internal veins, the costal veins and the stigma brown. Mandibles rufous. Palpi dark brown. Antennæ entirely black, a little longer than the head and thorax united and clothed with a short, moderately dense whitish pubescence, the joints of the flagellum elongate, the first and last joints about equal and longer than the intermediate joints, the first joint being a little longer and thicker than the second, about five times as long as thick, the second and following joints gradually shortening to the penultimate.

The head is transverse about as wide as the thorax between the tegulæ, the ocelli pale. The thorax is smooth, impunctate, except the metathorax which is rugulose, with an abbreviated median carina and nearly twice as long as high. The petiole of the abdomen is a little longer than wide and striate, the rest of the abdomen, except at the extreme base where it joins the petiole, is smooth, shining and impunctate, the extreme base with several striæ.

Type.—Cat. No. 5517, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission), one male.

On account of its metathoracic and wing characteristics this new species will fall in a table of the North American species next to *P. texanus* Ashmead, from which it is readily separated by its larger size, structure of antennæ and color of the legs.

Family BELYTIDÆ.

Genus *Zelotypa* Förster.

Five species have already been characterized in this genus in our fauna, one from Texas, one from Florida, two from Virginia and one from Canada, known only in the male sex. It is somewhat surprising, therefore, to find no less than three additional species in the Alaskan material, two being represented in the female sex.

These new species may be tabulated as follows:

Males 3.
Females.

Apterous forms..... 2.

Winged forms.

Marginal cell fully (or a little more than) twice as long as the marginal vein.

Black, with scutellum, middle mesothoracic lobe and legs honey- or brownish-yellow *Z. scutellata*.

Body wholly black, the legs honey-yellow, but with the hind coxæ basally and the clavate part of the hind femora obfuscated or fuscous.

Z. borealis.

2. Black, the scutellum, the middle thoracic lobe, first two joints of antennæ and the legs honey- or brownish-yellow..... *Z. scutellata*.

3. Marginal cell and the marginal vein not short, about equal in length.

Black, scape and pedicel brownish-yellow; first joint of the flagellum excised beneath for more than half its length; legs honey-yellow; hind coxæ basally, clavate part of hind femora and their tibiae apically obfuscated.... *Z. alaskensis*.

ZELOTYPA SCUTELLATA sp. nov.

Female.—Winged form. Length 2 to 2.2 mm. Head, thorax, except the middle mesothoracic lobe, and the abdomen black, smooth and shining; the scutellum, the middle mesothoracic lobe, the first two joints of antennæ (sometimes the first five or six), and the legs, brownish-yellow or honey-yellow. Wings hyaline, the veins brown, the tegulæ pale yellowish. The antennæ are not quite the length of the body, 15-jointed; the scape is as long as the pedicel and first two joints of flagellum united and slightly curved but not especially thick;

the first joint of the flagellum is the longest, about one-half longer than the second, the following to the fifth shortening, the fifth oblong, joints 6 to 12 submoniliform, very slightly longer than thick, the last joint fusiform, as long as the fourth. The metathorax is bounded by an elevated carina posteriorly and traversed by five longitudinal carinæ (a median and two on each side of it). The wing venation is normal, the marginal cell being fully twice as long as the marginal vein, the stigmal vein, or first branch of the radius, being straight, perpendicular and about two-thirds the length of the marginal vein. The abdomen, with its petiole, is very little longer than the head and thorax united, the petiole being rather thick, longitudinally furrowed and not quite $2\frac{1}{2}$ times as long as thick; the body of the abdomen is ovate, pointed at apex, highly polished and impunctate, except some striæ at its base where it joins the petiole, the first segment occupying most of its entire surface.

Female.—Wingless form. Length 2.5 mm. Agrees well in structure and color with the winged form, except the antennæ are a little longer and the legs are more decidedly yellow.

Type.—Cat. No. 5518, U. S. Nat. Museum. From St. Paul Island and Unalaska. Nine specimens.

ZELOTYP A BOREALIS sp. nov.

Female.—Length 3 mm. Polished black; first five or six joints of the antennæ brownish-yellow; legs honey-yellow, the hind coxæ basally and the clavate part of the hind femora blackish or obfuscated. Wings hyaline, the venation light brown, the tegulæ yellowish.

The antennæ are rather stout, shorter than the body, 15-jointed; the scape is stout, a little thicker at the middle than at the ends and as long as the first three joints of the flagellum (excluding the pedicel) united; the first joint of the flagellum is the longest, very nearly as long as the second and third united, the third joint is only two-thirds the length of the second, the fourth joint is oblong, the following to last being moniliform, briefly pedicellate, 6 to 12 a little wider than long, the last ovate, not longer than the fourth. Metathorax as in *Z. scutellata*. Abdomen pointed ovate, the petiole stout, only twice as long as wide, longitudinally furrowed, the interstices between the furrows above, wrinkled; body of abdomen much as in previous species except that there is a median grooved line above that extends to nearly the middle of the first segment. Wing venation as in previous species except that the marginal cell is slightly more than twice as long as the marginal vein.

Type.—Cat. No. 5519, U. S. Nat. Museum. From Muir Inlet, June 12 (Fur Seal Commission). Two female specimens.

ZELOTYPALASKENSIS sp. nov.

Male.—Length 2.5 mm. Polished black; first two joints of antennæ, tegulæ and the legs brownish-yellow or honey-yellow, the hind coxæ basally, the clavate part of their femora, and their tibiæ apically, obfuscated; wings hyaline, the veins brown.

The antennæ are fully as long as the body, 14-jointed, the joints elongate, cylindrical; the scape is slender and about as long as the pedicel and the first joint of the flagellum united, or very slightly longer; the pedicel is scarcely longer than thick; the first joint of the flagellum is the longest joint, a little longer than the second and excised beneath for more than half its length and appearing as if angulated when viewed from the side; the following joints are subequal, imperceptibly shortening to the last, the penultimate being hardly four times as long as thick, the last being one-third longer than the penultimate. The front wings differ from the two previous species in having the marginal vein and the submarginal cell of approximately equal length, the marginal vein being a little more than thrice as long as the stigmal or first branch of the radius. The petiole of the abdomen is a little more than four times as long as thick, smooth or nearly so, but with a few longitudinal carinæ; body of abdomen oblong-oval, smooth and highly polished, the medial grooved line above extending only to the basal third of first segment.

Type.—Cat. No. 5520, U. S. Nat. Museum. From Virgin Bay, June 26. One specimen.

Genus Aclista Förster.

ACLISTA CALIFORNICA Ashmead.

Aclista californica ASHMEAD, Monogr. N. A. Proctotryp., p. 378, 1893.—
DALLA TORRE, Cat. Hym., v, p. 452, 1898.

Type.—Cat. No. 5755, U. S. Nat. Museum (Ashmead Collection). From Belkofski, July 22. One specimen not distinguishable from the type taken in California.

Genus Zygotia Förster.

ZYGOTA AMERICANA Ashmead.

Zygotia americana ASHMEAD, Monogr. N. A. Proctotryp., p. 373, 1893.—
DALLA TORRE, Cat. Hym., v, p. 453, 1898.—ASHMEAD, Fur Seals and
Fur Seal Islands, iv, p. 336, 1899.

Type.—Cat. No. 5756, U. S. Nat. Museum (Ashmead Collection). From Bering Island (Barrett-Hamilton); Sitka.

Family DIAPRIIDÆ.

Genus *Spilomicrus* Westwood.

SPILOMICRUS ALASKENSIS sp. nov.

Female.—Length 1.8 mm. Polished black; legs black, with the sutures between the coxæ and the trochanters, the knees, apices of tibiæ and all tarsi, except last joint, honey-yellow, the tibiæ, except as noted, fuscous. Wings hyaline, the veins brown-black, the marginal vein being fully four times as long as thick, the stigmal vein very short, wider than long, with a delicate fuscous ray from its tip, one part extending backwards as in a Belytid, the other extending forward and forming a very narrow indistinct, but open marginal cell.

The thorax has the parapsidal furrows complete, each parapside with a large, deep, longitudinal fovea on its disk, the scutellum with a large fovea at its base, not divided by a median carina, while the meta-thorax has a distinct median carina.

The abdomen is conic-ovate, pointed at apex and highly polished, with the petiole opaque and only a little longer than thick.

Type.—Cat. No. 5521, U. S. Nat. Museum. From Muir Inlet, June 12 (Fur Seal Commission). One specimen.

This species differs from all others in our fauna by the simple basal scutellar fovea, by the deeply foveate parapsides, by venation and by the color of the legs.

Family CERAPHRONIDÆ.

Subfamily MEGASPILINÆ.

Genus *Lygocerus* Förster.

LYGOCERUS ALASKENSIS sp. nov.

Female.—Length 2 mm. Black and shining, not sculptured; palpi brownish; mandibles dark rufo-piceous; antennæ entirely black, except a faint yellowish tinge at the extreme apex of the pedicel, legs black, with the knees, tibiæ, except medially, and the tarsi except the last joint, dark honey-yellow, the tibiæ medially more or less fuscous, the claws black; tegulæ piceous. Wings hyaline, the large stigma, the costa and the stigmal vein being reddish-brown.

The head is polished, impunctate, seen from in front wider than long and with some short, sparse hairs anteriorly below the insertion of the antennæ. Eyes oblong-oval, faintly hairy. Antennæ 11-jointed, black, and reaching to the middle of the abdomen: the scape is as long as the pedicel and the first two joints of the flagellum united; the first and last joints of the flagellum are equal in length and a little longer than the intermediate joints which are subequal and scarcely more than twice as long as thick, the first and the last joints being a little more than thrice as long as thick; the pedicel is not quite two-thirds the length of the first joint of the flagellum.

The thorax is smooth and shining, the mesonotum having three distinct furrows, the pronotum being very short while the metathorax is abruptly shortened and faintly alutaceous.

The abdomen is ovate, polished black, subdepressed, wider than thick dorso-ventrally, a little longer than the head and thorax united, the ovipositor subexserted, the petiole extremely short, transverse and striate; body of abdomen has an elevated rim at extreme base where it unites with the petiole.

Type.—Cat. No. 5522, U. S. Nat. Museum. From St. Paul Island, August 10 (Fur Seal Commission). One specimen.

This species is allied to *L. stigmatus* Say but it is slightly larger and easily separated by the relative lengths of the flagellar joints of antennæ and by the difference in the pedicel.

Superfamily VI. CYNIPOIDEA Ashmead.

Family FIGITIDÆ.

Subfamily EUCÆLINÆ.

Genus *Tetrarhapta* Förster.

TETRARHAPTA ALASKENSIS sp. nov.

(Pl. IX, fig. 2.)

Female.—Length 1.4 mm. Polished black; the mandibles, knees, base and tips of tibiæ and all tarsi, testaceous or reddish; wings hyaline, largely pubescent, the apex of the anterior wings subemarginate, the veins brown-black, the marginal cell open all along the outer margin.

The 13-jointed antennæ terminate in a large 4-jointed club, the joints being fluted, the first being a little shorter than the second, the second and third subequal, the last large, ovate, one-half longer than

the third; the joints of the funicle are slender, subcylindrical, the first being fully twice as long as the second, the following very imperceptibly shortening to the club; the scape is obconical, about one-third longer than the pedicel. The scutellum, along the sides, is delicately, longitudinally aciculate, the cup being very narrow, ellipsoidal; the metathorax is smooth and shining, or at the most, faintly alutaceous and bicarinate.

Male.—Length 1.5 mm. Agrees well with the female except that the antennæ are longer, 15-jointed, with the first joint of the flagellum long and stout, slightly curved, and about as long as the second and third joints united, the following joints being nearly equal, about thrice as long as thick and all strongly fluted.

Type.—Cat. No. 5523, U. S. Nat. Museum. From St. Paul Island, August 15 (Fur Seal Commission). Described from one male and three female specimens.

Genus *Eucæla* Westwood.

EUCÆLA ALASKENSIS sp. nov.

Female.—Length 2 mm. Polished black; the mandibles, the antennæ, except the scape and pedicel, and the legs, except more or less of the middle and hind coxæ, rufo-testaceous, the femora somewhat obfuscated toward base; wings hyaline, pubescent, the veins reddish-brown, the marginal cell completely closed, tegulæ piceous black.

The first two joints of the flagellum are cylindrical, subequal, a little more than twice longer than thick, the following joints gradually thickening toward apex, elliptic-oval, delicately fluted, and subequal in length, except the last, which is considerably longer than the penultimate. The scutellum at the sides is opaque, finely rugulose, the cup oval, with its disk slightly depressed, a fovea posteriorly and a row of minute punctures along its margins. The metathorax above and posteriorly is finely rugulose, faintly pubescent and bicarinate, its pleura being smooth and polished. Abdomen normal, a little longer than the head and thorax united and with a narrow pubescent girdle at base.

Type.—Cat. No. 5524, U. S. Nat. Museum. From Seldovia, July 2. One female specimen.

Subfamily *ALLOTRIINÆ*.

Genus *Alloxysta* Förster.

ALLOXYSTA ALASKENSIS sp. nov.

Male.—Length 1 to 1.1 mm. Polished black; the face below the antennæ, cheeks, mandibles, palpi, antennæ and legs, pale yellow, the

femora and tibiæ, except their apices, obfuscated or light brownish; wings hyaline, the veins brownish-yellow.

The antennæ are long, filiform, longer than the body, 14-jointed; the flagellar joints 1 to 3 are the longest joints, the first straight, cylindrical, more than twice as long as thick, the second and third somewhat thickened and both curved, thrice as long as thick, the following joints slender, hardly more than twice as long as thick and clothed with a short, fine pubescence. Thorax as in *Allotria*. Wings nearly twice the length of the body, the marginal cell being open all along the front margin, the second abscissa of the radius being curved and nearly twice the length of the first.

Female.—Length 1.5 mm. Agrees well with the male except that the head is castaneous, the yellow of the face beginning a little above the insertion of the antennæ, the first five joints of the antennæ and the legs being yellow, the rest of the antennæ being brown-black.

The antennæ are as long as the body, 14-jointed, slightly thickened toward apex, the joints of the flagellum elongate, the second and third joints of same being longer than the first, the second being longer than the third, and the longest joint of all, the following joints to the last being nearly equal in length, the last being longer than the penultimate.

Type.—Cat. No. 5525, U. S. Nat. Museum. From Muir Inlet, June 12; St. Paul Island, August 6 (Fur Seal Commission). Three male and two female specimens.

Superfamily VII. CHALCIDOIDEA.

Family TORYMIDÆ.

Genus *Torymus* Dalman.

TORYMUS CECIDOMYLÆ (Walker).

Callimome cecidomyia WALKER, Ann. & Mag. Nat. Hist., XIV, p. 15, ♀, 1844.—CRESSON, Syn. Hym. North Am., p. 237, 1887.—DALLA TORRE, Cat. Hym., v, p. 302, 1898.

Type in British Museum. From Kodiak, July 20; Popof Island, July; Virgin Bay, June 24. Four specimens.

Originally described from Hudson Bay Territory. It is a parasite on *Cecidomyia communis* Barnston MS. The four specimens taken are without much doubt referable to this species. They exhibit considerable variation in color of the antennal scape and of the legs. The scape is most frequently metallic, though sometimes wholly yellow beneath, or with only a yellow spot at extreme base, the legs varying in the amount of green on the femora and of brown on the tibiæ.

Family MISCOGASTERIDÆ.**Subfamily TRIDYMINÆ.****Genus *Terobia* Förster.****TEROBIA VULGARIS sp. nov.**

(Pl. ix, fig. 3.)

Female.—Length 1.8 to 2 mm. Most variable in color, metallic bluish-green, æneous or bronzed green, with bluish, purplish and brassy reflections, the parapsides, mesopleura and metathorax, most frequently bluish or blue-black, faintly tinged with metallic green, the head, prothorax and at least the middle mesothoracic lobe metallic green or brassy; abdomen most frequently æneous black, sometimes with a decided brassy tinge; scape, pedicel and legs, except sutures of trochanters, tips of femora, the tibiæ and the tarsi except as hereafter noted, æneous black or metallic; the sutures of trochanters, tips of femora, the tibiæ, except apices of the middle and hind tibiæ, and the tarsi, except last joint, honey-yellow or brownish-yellow; tips of middle and hind tibiæ and the last joint of the tarsi dark brown or fuscous; the middle tibiæ sometimes before the middle are more or less obfuscated; the flagellum black or brown-black, sparsely pubescent; tegulæ testaceous or yellowish; wings hyaline, the venation brown; the stigmal vein with its club is rather long, but a little shorter than the marginal, the club being large and with a small uncus obliquely directed towards the margin of the wing, and if continued would form a triangular marginal cell; the postmarginal vein is very long, nearly twice as long as the marginal.

The head is transverse, a little more than thrice as wide as thick antero-posteriorly, much wider than the prothorax and possibly a little wider than the mesothorax from tegula to tegula; viewed from in front it is a little wider than long, obtusely triangular; posteriorly it is smooth, on the vertex and anteriorly it is feebly alutaceously sculptured; ocelli small, arranged in an obtuse triangle; eyes oblong-oval; the malar space distinct, at least one-third the length of the eye; clypeus small, obtrapezoidal, indistinctly separated, and indistinctly bidentate anteriorly or with a slight median incision; mandibles (?) 4-dentate.

The antennæ are 13-jointed, with 2 minute ring-joints inserted near the middle of the face above a line drawn from the base of the eyes; the scape is about as long as the first three funicle joints united; pedicel obconical, scarcely longer than thick at apex; the flagellum is subclavate, thrice as long as the scape, with the joints all delicately fluted, the funicle being 6-jointed, the joints oblong, about one and a half

times as long as thick, subequal in length, the first slightly the smallest joint; the club fusiform, stouter than the funicle and 3-jointed, the first and second joints subquadrate, the third obtusely conical.

The thorax, except the metanotum, is almost smooth, or at most with a faint or microscopic reticulate sculpture, the disk of the mesopleura being smooth and highly polished, the parapsidal furrows distinct and complete, the mesothoracic lobes subconvex; the scutellum is divided by a transverse grooved line near its apex; the metathorax is shagreened, without a distinct median carina but with the lateral carinae more or less indicated; while the spiracles are small and round.

The abdomen is briefly petiolate, shorter than the thorax and highly polished, impunctate, except the petiole which is shagreened; the body of the abdomen seen from above is obovate, seen from the side it is more conical, the venter being subcompressed; the first (body) segment is the longest, fully as long as segments 2 and 3 united, the following segments very gradually shortening.

Male.—Length 1.6 to 1.8 mm. Agrees well with the female, except it is usually more bluish, its antennal and abdominal characters are different and the tibiae are fuscous or brown with both ends yellow (more rarely wholly yellow with the apical half of the femora yellow). The antennae are slightly longer, the flagellum being filiform, not subclavate, and clothed with sparse but more erect hairs than in the female, the scape being clavate, thickened towards apex beneath, the funicle joints being fully twice, or more than twice, as long as thick, the first joint being much longer, from $3\frac{1}{2}$ to 4 times as long as thick, rarely only thrice as long as thick. Abdomen oblong-oval.

Type.—Cat. No. 5526, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission). Many specimens.

Family PTEROMALIDÆ.

Subfamily PTEROMALINÆ.

Genus *Eutelus* Walker.

EUTELUS CONFUSUS sp. nov.

Female.—Length 1.5 mm. Head and thorax bluish, finely and closely punctate, the pleura and metathorax with a metallic greenish tinge; antennae dark brown, inserted far anteriorly, near the anterior margin of the head; legs yellowish with the coxae metallic green, the anterior and middle femora, except tips, brown, the hind femora black or æneous black. Wings hyaline, the tegulae and veins pale yellowish.

Abdomen conic-ovate, æneous black, depressed above, carinate or boat-shaped beneath, and a little longer than the head and thorax united. The flagellum is subclavate, less than twice as long as the scape, the funicle joints not longer than wide, with at least the fifth and sixth joints wider than long.

Male.—Length 1.2 mm. Metallic blue green, with the scape of the antennæ and the pedicel, except a spot above at base, and the legs, except the coxæ, yellowish-white, the funicle light brownish, the joints gradually increasing in size, in outline all obtrapezoidal, while the club is fusiform and black.

Type.—Cat. No. 5527, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission).

Family EULOPHIDÆ.

Subfamily TETRASTICHINÆ.

Genus *Tetrastichus* Haliday.

TETRASTICHUS ANTHRACINUS sp. nov.

Female.—Length 1.6 mm. Coal black, impunctate; mandibles, all tarsi except the last joint, a spot on the middle and hind knees, apices of the front femora, and their tibiæ, except apically, honey-yellow; antennæ dark brown, pubescent. Wings hyaline, the tegulæ black, the veins dark brown. Abdomen long-ovate, longer than the head and thorax united, carinate beneath.

Type.—Cat. No. 5528, U. S. Nat. Museum. From Seldovia, July 7. One specimen.

TETRASTICHUS ALASKENSIS sp. nov.

Male.—Length 1.2 mm. Black, the abdomen æneous black; mandibles; trochanters, apices of all femora, the front tibiæ, an annulus at base of middle and hind tibiæ, and all tarsi, except the last joint, brownish-yellow; antennæ black pubescent. Wings hyaline, the tegulæ yellow, the veins light brown, the base of the stigmal vein being pallid or whitish. Abdomen pointed ovate, not longer than the head and thorax united, above flat, beneath convex.

Type.—Cat. No. 5529, U. S. Nat. Museum. From Popof Island, July 19. One specimen.

Subfamily *ELACHISTINÆ*.Genus *Elachistus* Spinola.*ELACHISTUS GLACIALIS* sp. nov.

Female.—Length 2 mm. Polished black, impunctate, clothed with a sparse, whitish pubescence; mandibles dark rufous; legs except coxæ and more or less of the femora, brownish-yellow, the coxæ black, the front and middle femora toward the base fuscous, the hind femora, except at apex, dark-brown; scape and pedicel of antennæ black, the flagellum brown-black, the funicle 4-jointed, the first joint the longest, about twice as long as thick, the following joints shortening, the fourth being only about as long as thick, the club cone-shaped; wings ample, hyaline, with the veins brown, the marginal vein long, twice the length of the stigmal or as long as the subcostal vein, the postmarginal a little shorter than the marginal; abdomen broadly ovate, depressed, and scarcely as long as the thorax, the ovipositor subexserted.

Male.—Length 1.8 mm. Agrees well with the female, except in the following differences: The legs, except the coxæ, knees and tarsi, are brown-black or fuscous, the coxæ being black, the knees and tarsi yellowish; the flagellum is compressed, the joints of the funicle briefly pedicellate, appearing subquadrate, as seen from the side, the first joint being oblong, while the abdomen is oblong-oval.

Type.—Cat. No. 5530, U. S. Nat. Museum. From Muir Inlet, June 12 (Fur Seal Commission), one female; Yakutat, June 21, one male.

Subfamily *EULOPHINÆ*.Genus *Eulophus* Geoffroy.*EULOPHUS KUKAKENSIS* sp. nov.

Male.—Length 1.5 mm. Æneous black, shagreened, the pronotum above, the scutellum, the mesopleura posteriorly and the meta-pleura with a decided greenish metallic tinge; flagellum brown-black, with 3 very long branches, each branch ciliate with long hairs, subequal in length, the first branch, however, a little the longest and as long as the flagellum; coxæ metallic, the trochanters, apices of the front and middle femora and tibiæ, except the hind tibiæ, and tarsi, honey-yellow, rest of the femora black, the hind tibiæ fuscous; wings hyaline, the veins light brownish; abdomen oblong, æneous black, except a yellow spot or band near its base, visible both from beneath and above.

Type.—Cat. No. 5531, U. S. Nat. Museum. From Kukak Bay, July 4, one male specimen.

Superfamily VIII. **ICHNEUMONOIDEA** Ashmead.

Family **ICHNEUMONIDÆ**.

Tribe **JOPPINI**.

Genus **Automalus** Wesmael.

AUTOMALUS NIGROPILOSUS sp. nov.

(Pl. ix, fig. 4.)

Male.—Length 19 mm. Head, except face below insertion of antennæ, antennæ, except a spot on scape beneath, thorax, abdomen, coxæ and first joint of all trochanters, black; face below antennæ and spot on scape beneath, yellow; legs, except coxæ and first joint of trochanters, flavo-ferruginous. Wings hyaline, or at least only faintly tinged, the stigma and veins brown, the disco-cubital vein broken by a slight stump of a vein a little beyond its middle, the second recurrent nervure broken by a slight stump of a vein near its middle.

The head and thorax are shining but sparsely punctate and sparsely clothed with a black pubescence, the metathorax being rugulose, obliquely truncate behind, without a distinct areola, but with long lateral areas and distinct pleural carinæ. The abdomen is elongate, nearly twice as long as the head and thorax united, opaque, the petiole at apex and the second segment rather coarsely rugulose punctate, the following segments more finely and evenly sculptured, the gastro-cæli large, oblique, the space between being nearly as wide as their length.

Type.—Cat. No. 5532, U. S. Nat. Museum (Fur Seal Commission). From Juncau, July 25; Popof Island, July 13. Three specimens.

Tribe **ICHNEUMONINI**.

Genus **Stenichneumon** Thomson.

STENICHNEUMON UNALASKÆ sp. nov.

Male.—Length 16 mm. Black; face below the insertion of the antennæ, including the clypeus, the two apical joints of palpi, scape beneath, tegulæ, an abbreviated line on the upper posterior margin of the pronotum, apices of the front and middle femora, all tibiæ, except

the hind tibiæ at apex, all tarsi, except the last three joints of hind tarsi, and abdominal segments 2, 3 and 4, except a lateral streak on the second basally, a band at base of second and third, yellow. There is also a narrow tranverse yellow line at the apex of the fifth abdominal segment. Wings subhyaline, the stigma and veins, except the subcostal vein at its apical two thirds, brown. The head and thorax are distinctly, rather closely punctate, the clypeus very sparsely punctate, the mesopleura beyond the discal impression and a spot near the upper angles of the metapleura alone smooth and impunctate. The metathorax is rugulose, the areola being large, quadrate, the lateral basal and median areas being confluent. The hind coxæ are strongly punctate, the front and middle coxæ less strongly punctate. Wings with the venation normal, the submedian cell longer than the median, the disco-cubital nervure not broken by a distinct stump of a vein, the areolet pentagonal, but with the sides strongly convergent above, the transverse cubiti almost meeting. The abdomen is about twice as long as the head and thorax united, the petiole rugulose at apical third, segments 2 to 4 rugulosely punctate, the fourth less distinctly at apex, the following segments nearly smooth, at most alutaceously sculptured and finely, sparsely punctate; gastrocœli broad and deep with striæ at bottom.

Type.—Cat. No. 5533, U. S. Nat. Museum. From Unalaska, July 17. One specimen.

Genus *Ichneumon* Linné.

TABLE OF SPECIES.

- Body *mostly black*, or head and thorax black..... 2.
 Body *mostly rufous*, or ferruginous, or thorax never entirely black. 10.
 2. Abdomen *not entirely black*..... 4.
 Abdomen *entirely black*.
 Face below antennæ ivory white 3.
 Face entirely black.
 Legs, except hind tarsi, red.....*I. imitator*.
 3. Scutellum and postscutellum yellow; scape beneath yellowish or whitish; legs red; coxæ and trochanters, except more or less of the first joint of front and middle pairs, black; anterior tibiæ and tarsi paler, yellowish or brownish-yellow; tips of hind tibiæ and more or less of their tarsi, fuscous.....*I. sitkensis*.
 Scutellum with yellow spot at apex; postscutellum and scape beneath black; legs red, but with the coxæ, except a white spot on front pair beneath, trochanters, front femora beneath, middle

femora more or less basally and hind femora black; anterior tibiæ and tarsi yellowish; apex of hind tibiæ and their tarsi fuscous. *I. kincaidi*.

4. Abdomen *not nearly black*, with one or more segments red or yellow 5.
- Abdomen *almost wholly black*, with only extreme apex of the petiole and extreme apices of second and third segments narrowly testaceous.
- Face below antennæ, scape beneath, palpi, an abbreviated line in front of tegulæ and one below, and the anterior tarsi, ivory or yellowish-white; scutellum and postscutellum yellow; legs red, with all coxæ, first joint of trochanters, hind femora within tips of their tibiæ and their tarsi, black..... *I. simulator*.
5. Abdomen with second and third segments, and sometimes the fourth or others, more or less red or yellow but stained or marked with black..... 6.
- Abdomen with second and third segments entirely red 8.
6. Second and third segments more or less yellow 9.
- Second and third segments more or less red.
- Scutellum yellow..... 7.
- Scutellum black.
- Face entirely black; legs black, with the apices of the front and middle femora and all tibiæ and tarsi, except sometimes the hind tibiæ at apex reddish-yellow. Male..... *I. cervulus*.
7. Face below antennæ and scape beneath, yellow.
- Legs black with anterior femora, except beneath toward base, apices of middle femora, spot at base of hind femora within, all tibiæ, except apical third of hind tibiæ and tarsi, except apices of joints 1 to 4, and fifth joint of hind tarsi entirely, reddish-yellow. Male. *I. kodiakensis*.
8. Face below antennæ, except an orbital line and scape beneath, black; scutellum and legs, except coxæ and trochanters, red. Male. *I. popofensis*.
- Face below antennæ and scape beneath, yellow; scutellum red or with a red spot; the legs red, with the coxæ, trochanters, apices of hind femora, and their tibiæ, black. Male..... *I. glacialis*.
9. Face, scape beneath tegulæ, an abbreviated line in front and below it, the legs (except a spot beneath and behind the front and middle femora, a small spot on middle coxæ, hind coxæ, first joint of their trochanters, their femora and apex of their tibiæ), the scutellum and broad bands on second and third abdominal segments, yellow; sometimes the collar and fourth abdominal segment are maculate with yellow. Male..... *I. wilsoni*.
10. Males..... 11.
- Females.
- Ferruginous; sutures of thorax, prosternum, mesosternum broadly

along anterior margin, metathorax anteriorly and beneath, including metasternum and lower half of metapleura, and a band at base of second, third and fourth abdominal segments, black...*I. brevipennis*.

11. Face below antennæ and scape beneath yellow.

Thorax mostly black, the mesonotum and the scutellum rufous; legs, except the hind tarsi and the front coxæ and tarsi, ferruginous, the hind tarsi fuscous, the front coxæ and tarsi pale yellowish or yellowish-white.....*I. brevipennis*.

ICHNEUMON IMITATOR sp. nov.

Male.—Length 10.5 to 11 mm. Black and shining but punctate; mandibles rufo-piceous; palpi fuscous; tegulæ and the epitegulæ testaceous; legs, except the claws, pulvilli and hind tarsi, which are black or fuscous, red. Wings sub-fuliginous, the stigma except medially, and the veins brown-black, the stigma medially being testaceous. The antennæ are 37-jointed and extend to beyond the middle of the abdomen, tapering off to a point at apex, the joints after the eighth being more or less nodose beneath. The pubescence on the face, mandibles, and sides of the thorax is whitish, that on the vertex of the head, the mesonotum, and the scutellum being more or less fuscous, although there are some whitish hairs intermixed with it. The metathoracic areola is large, quadrate, a little longer than wide, the basal lateral and the median lateral areas being confluent. The wing venation is normal, the submedian cell a little longer than the median, the discocubital nervure broken by a stump of a vein very near its middle, the areolet irregularly pentagonal, the transverse cubiti converging above, the upper face formed by them, or the part represented by the second abscissa of the radius, being much the shortest face of the five; the second recurrent nervure joins the areolet much beyond its middle, while the transverse median nervure in the hind wings is nearly straight, but broken by the subdiscoidal nervure below the middle or at about its basal third. The abdomen is elongate, nearly twice as long as the head and thorax united, black except the venter, which is more or less dark rufous, the ventral segments 2 to 5 with a distinct fold; the petiole, except a narrow, smooth, shining spot at the extreme apex, is finely rugulose, the second and following segments are coriaceous, the second and third segments being also more or less punctate basally, the second with some irregular elevated lines extending into the gastrocœli and some finer elevated lines extending from them.

Type.—Cat. No. 5534, U. S. Nat. Museum. From Sitka, June 16; Juneau, July 25. Two specimens. The species, except in the color

of the face and coxæ, and in size, superficially resembles *Automelus nigropilosus*.

ICHNEUMON SITKENSIS sp. nov.

Male.—Length 9 to 10.5 mm. Black and shining; the head above, especially close to the eye margins and the thorax above are coriaceous, subopaque and finely punctate, the mesopleura shining, closely punctate, becoming rugulose punctate toward hind margins, the metathorax rugulose, the posterior face with irregular, elevated transverse lines; flagellum black; face below insertion of antennæ, an orbital line above, an orbital line on the lower hind orbits, scape beneath, palpi, an abbreviated line in front of the tegulæ and a line below, apices of the front and middle coxæ, and their trochanters, ivory or yellowish-white; ocelli pale; scutellum and postscutellum yellow; legs red with the coxæ and trochanters, except as noted, black; the anterior and middle tibiæ paler, yellowish or brownish-yellow, the anterior and middle coxæ at apex and their trochanters whitish, the tip of hind tibiæ and more or less of their tarsi fuscous. Wings hyaline, the stigma and veins brown, the disco-cubital vein not broken by a stump of a vein. The metathoracic arcola is quadrate or nearly so, very slightly wider than long, the anterior angles of same being slightly rounded, the basal lateral and middle lateral areas are confluent, while the apical areas are complete. The abdomen is elongate, about twice longer than the head and thorax united, the first segment, or the petiole, being finely rugulose at apex, the second, third and fourth segments, subopaque, finely coriaceous, those beyond smoother, shining, at the most feebly alutaceous, while the gastrocœli are transverse and separated from each other by a small space.

Type.—Cat. No. 5535, U. S. Nat. Museum. From Sitka, June 16. One specimen.

ICHNEUMON KINCAIDI sp. nov.

Male.—Length 10 mm. Closely resembles *I. sitkensis* and easily confused with it but for the following differences: There is a yellow spot at the summit of eyes, on the lower hind orbit and on the middle of the superior margin of the pronotum; the antennæ, except a yellowish spot on joints 15 and 16 *above*, are black, the scape not white beneath, all coxæ and trochanters and the hind femora are black, although the front coxæ *beneath* and the trochanters at apex *narrowly* are white; rest of legs, except the tibial spurs which are white and the apices of hind tibiæ and tarsi, which are blackish or fuscous, red.

Wings faintly dusky, the disco-cubital nervure broken by a stump of a vein a little before its middle. The metathoracic areola is as in *I. sitkensis* except that the basal lateral and the middle lateral areas are separated, not confluent.

Type.—Cat. No. 5536, U. S. Nat. Museum. From Virgin Bay, June 26. One specimen.

ICINEUMON SIMULATOR sp. nov.

Male.—Length 9 mm. Closely resembles and easily confused with both *I. sitkensis* and *I. kincaidi* but for the following differences: The flagellum is ferruginous beneath for three-fourths its length; the mesothoracic areola is large, quadrate, the surrounding carinae being poorly defined, the posterior carina being sinuate medially; the basal lateral and middle lateral areas are wholly confluent without even a trace of the dividing carina; the legs are rufous with all coxae and trochanters, except the second joint of the hind trochanters, black, the apical half of the hind tibiae and their tarsi, which are black or fuscous; while the abdomen has a spot at apex of the first segment and the extreme apices of the second and third segments narrowly, testaceous.

Type.—Cat. No. 5537, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

ICHNEUMON CERVULUS Provancher.

Ichneumon cervulus PROVANCHER, Nat. Can., VII, p. 83, ♂, 1875.—PROVANCHER, Fn. ent. du Can. Hym., p. 282, 1883.—CRESSON, Syn. Hym. North Am., p. 184, 1887.

Type in collection of the American Entomological Society. From St. Paul Island, August 16; Belkofski, July 22 (Fur Seal Commission).

ICHNEUMON KODIAKENSIS sp. nov.

Male.—Length 13 mm. Black, punctate; face below the insertion of the antennae, except a small median spot basally and the surface surrounding the clypeal spiracles, the scape beneath, a small stripe on tegulae and a line in front and below, the scutellum, second joint of trochanters, the anterior femora at apex and beneath, apex of middle femora, all tibiae and tarsi, except the hind tibiae at apex and the apices of joints of hind tarsi 1 to 4 and the fifth joint, lemon-yellow; abdominal segments 2 and 3, except the basal half of the first mentioned and a narrow stripe at base of the third, yellow. Wings subfuscous, the veins brown-black, the stigma within and the poststigmal or postmar-

ginal vein brownish-yellow, the disco-cubital nervure not broken by a stump of a vein, the second recurrent nervure joining the areolet a little before its middle. The metathoracic areola is large, quadrate or nearly so, a little wider than long, with the anterior angles slightly rounded, the basal lateral and middle lateral areas distinctly separated.

Type.—Cat. No. 5538, U. S. Nat. Museum. From Kodiak, July 20. One specimen.

ICIINEUMON POPOFENSIS sp. nov.

Male.—Length 9.5 to 10 mm. Black and shining, although punctate; the front orbits have a narrow yellow line extending from a little below the middle of the face to near the summit of the eyes; the apical half, or more, of the mandibles, the scutellum, the legs, except coxæ and trochanters, and abdominal segments 2 and 3 and sometimes a lateral spot on 4, are red. Wings hyaline, or only faintly tinged, the stigma and veins brown, the disco-cubital vein with only a slight trace of a stump of a vein, while the second recurrent nervure joins the areolet at its middle. The metathoracic areola is large, quadrate, while the basal lateral and middle lateral areas are confluent. The abdomen is about twice as long as the thorax, the petiole aciculate at apex, dorsal segments 2 to 4 closely punctate, the following segments smoother, feebler, more sparsely and less distinctly punctate, while the gastrocœli are transverse, the space before each being striate.

Type.—Cat. No. 5539, U. S. Nat. Museum. From Popof Island, July 8. Two specimens.

ICHNEUMON GLACIALIS sp. nov.

Male.—Length 8 mm. Resembles *I. popofensis* and easily confused with it but for the following differences: The face below the insertion of the antennæ and a spot on scape beneath are lemon-yellow, not black; the palpi are yellowish-white: the apices of the hind femora and tibiæ are black; the first segment of the abdomen at apex, as well as the second and third, is red; the metathoracic areola is large, quadrate, but considerably broader than long; the second abdominal segment is only sparsely and feebly punctate at base, the following segments being smooth, the extreme apices of the third and fourth being testaceous; while the wings are subfuscous, the disco-cubital vein broken by a stump of a vein, the second recurrent nervure joining the areolet a little beyond the middle.

Type.—Cat. No. 5540, U. S. Nat. Museum. From Juneau, July 25. One specimen.

ICHNEUMON WILSONI (Cresson).

Ischnus wilsoni CRESSON, Proc. Ent. Soc. Phila., II, p. 188, 1864.

Ichneumon wilsoni CRESSON, Trans. Am. Ent. Soc., VI, p. 161, 1877.—
CRESSON, Syn. Hym. North Am., p. 18, 1887.

Type in collection of the American Entomological Society. From Seldovia, July 21; Juneau, July 25. Six specimens.

ICHNEUMON BREVIPENNIS Cresson.

Ichneumon brevipennis CRESSON, Proc. Ent. Soc. Phila., III, p. 174, 1864.—
CRESSON, Trans. Am. Ent. Soc., VI, p. 182, 1877.—CRESSON, Syn. Hym. North Am., p. 183, 1887.

Type in collection of the American Entomological Society. From Muir Inlet, June 11 (Fur Seal Commission); Kukak Bay, July 4; Yakutat, June 21; Virgin Bay, June 26. Five females and three males.

Genus *Melanichneumon* Thomson.

MELANICHNEUMON SELDOVIÆ sp. nov.

Male.—Length 10 mm. Black; face below insertion of antennæ, mandibles, scape beneath and the palpi except first three joints of labial palpi, and the first joint and base of second joint of maxillary palpi ivory white; first three joints of labial palpi and the first joint and apex of second joint of maxillary palpi fuscous, the second joint of the last mentioned being much dilated apically; flagellum pale brownish beneath, with an annulus, joints 13 to 15 being yellowish-white; scutellum and postscutellum yellow; legs rufous, with the coxæ and first joint of trochanters except sutures, black, the hind tibiæ toward apex and their tibiæ, fuscous. Wings hyaline, the disco-cubital vein not distinctly broken by a stump of a vein, the areolet irregularly pentagonal, the second recurrent nervure joining it before the middle. The metathoracic areola is hexagonal, the basal lateral and the middle lateral areas partly confluent, the transverse carina dividing them being distinct only at base, while the lateral apical areas are wanting.

Type.—Cat. No. 5541, U. S. Nat. Museum. From Seldovia, July 21. One specimen.

This species, without the closest attention to its generic characters, could easily be confounded with *Ichneumon imitator*, *I. sitkensis* and *I. kincaidi*.

Genus *Cratichneumon* Thomson.

This genus, not hitherto reported from North America, is represented in Alaska by five species, all new, distinguishable as follows:

TABLE OF SPECIES.

- Mostly *rufous* or ferruginous, or at least with mesonotum or scutellum *rufous*..... 3
- Mostly *black*, or head and thorax black.
- Abdomen mostly *rufous* or ferruginous..... 2
- Abdomen entirely *black*.
- Face below antennæ, spot on orbits at summit of eyes, and line opposite insertions of antennæ, white; legs ferruginous, with coxæ, first joint of trochanters, hind femora, and apices of their tibiæ black. Male..... *C. alaskensis*.
2. Face and antennæ wholly black; abdomen at apex black, segments 1 to 3 and 4 except at apex, red; legs black, with apices of anterior and middle femora, their tibiæ and tarsi and hind tibiæ, except at apex, and their tarsi, reddish-yellow. Male..... *C. kodiakensis*.
- Face below antennæ, anterior orbits, dot at summit of eyes, scape beneath, tegulæ, an abbreviated line in front of them, the tibial spurs, and front and middle coxæ and trochanters, ivory or yellowish-white; flagellum, except above, rest of legs, except first joint of hind trochanters and hind tarsi, which are fuscous, and abdomen, except the first segment, *rufous* or ferruginous. Male..... *C. yakutatensis*.
3. Mostly *rufous* or ferruginous..... 4
- Mostly black, with mesonotum, scutellum and abdomen, except first segment, more or less basally, *rufous*, rarely with the metathorax marked with *rufous*; face, below antennæ, scape beneath, palpi, a short line on upper margin of prothorax in front tegulæ, a spot *vis-à-vis* on lower margin, front coxæ and trochanters, yellowish-white. *C. confusus*.
4. Thoracic sutures strongly marked with black.
- Metathorax entirely black; flagellum incrassated, black, with a yellowish annulus near the middle, the first three joints only a little longer than thick, those beyond transverse; legs and abdomen, except most of the petiole, *rufous*. Female..... *C. popofensis*.
- Metathorax *rufous*; face below antennæ, orbits, scape beneath and front coxæ beneath, yellowish-white; legs, except front trochanters, middle coxæ and trochanters, more or less, apices of hind coxæ, first joint of their trochanters, extreme apex of their femora, tips of hind tibiæ and their tarsi, which are blackish or fuscous, red; abdomen entirely red. Male..... *C. popofensis*.

CRATICHNEUMON ALASKENSIS sp. nov.

Male.—Length 8 mm. Black shining, the head and thorax punctate; face below insertion of antennæ, mandibles, palpi, and an abbreviated line in front of the tegulæ, ivory white; legs, except coxæ, trochanters, and hind femora, mostly ferruginous, the front femora beneath, the middle femora basally, apex of the hind tibiæ and hind tarsi being black or fuscous; tibial spurs whitish. Wings hyaline, the stigma and veins brown, the disco-cubital vein simple, not broken by a stump of a vein, the second recurrent nervure joining the areolet beyond its middle, the sides of the areolet strongly converging above. The metathoracic areola is horse-hoof shaped, the basal lateral and middle lateral areas being distinctly separated.

Type.—Cat. No. 5541, U. S. Nat. Museum. From Kodiak, July 20. One specimen.

CRATICHNEUMON KODIAKENSIS sp. nov.

Male.—Length 15.5 mm. Black shining and punctate; labium, apical joints of labial palpi and last three joints of maxillary palpi, yellowish; mandibles except at base rufous; legs black, with the apices of the front and middle femora, their tibiæ and tarsi and the hind tibiæ, except at apex and their tarsi, reddish-yellow; abdominal segments 2 to 5, except the first apically, rufous. Wings subhyaline, the stigma, except the margins, brownish-yellow, the internal veins dark brown, the disco-cubital vein not broken by a stump of a vein, the areolet rather large, pentagonal, the second recurrent nervure joining it only slightly, hardly perceptibly, before its middle. The metathoracic areola is horse-hoof shaped, the basal lateral and the middle lateral areas being confluent. The abdomen is distinctly punctate, the punctuation on the second and third segments being closer and more distinct, on the following finer and less distinct, the second with some coarse elevated lines basally, the gastrocœli broad and widely separated, the apex of the petiole being longitudinally striate.

Type.—Cat. No. 5542, U. S. Nat. Museum. From Kodiak, July 20. One specimen.

CRATICHNEUMON YAKUTATENSIS sp. nov.

Male.—Length 7.5 to 8 mm. Head thorax and petiole of abdomen, except at apex, black; a dot at summit of eyes, the anterior orbits, face below antennæ, lower hind orbits and the cheeks, mandibles except teeth, palpi, scape beneath, tegulæ, an abbreviated line in front of

them, along the upper margin of the pronotum, and a short line beneath, tibial spurs, and the anterior and middle coxæ and trochanters, ivory or yellowish-white; rest of legs, except the base of hind trochanters, apices of hind tibiæ and tarsi which are black or fuscous, and the abdomen, red; scutellum and postscutellum yellow; ocelli whitish; flagellum ferruginous beneath. Wings hyaline, the stigma and veins, except the subcostal, median and submedian veins basally, being brown-black; the disco-cubital vein has only a trace of a stump of a vein, the areolet being irregularly pentagonal, the sides strongly convergent above, and receiving the second recurrent nervure very slightly beyond its middle. The head is feebly, sparsely punctate, the cheeks and temples being impunctate, thorax sparsely but more distinctly punctate, the metathorax rugulose, strongly and completely areolated, the areola horse-hoof shaped, wider than long. The abdomen is twice as long as the thorax, smooth and shining, the petiole very sparsely punctate, except at extreme apex where it is smooth and impunctate, second and third segments punctate, the second the more strongly punctate, the gastrocœli small and not very deeply impressed.

Type.—Cat. No. 5543, U. S. Nat. Museum. From Yakutat, June 21; Popof Island, July 11, two specimens.

CRATICHNEUMON CONFUSUS sp. nov.

Male.—Length 6 to 7 mm. Head, except anteriorly and the thorax except the mesonotum and scutellum, black; abdomen, except basal two-thirds of first segment, basal half or more of second segment, a broad band at base of third segment, and usually a very narrow band at base and apex of fourth segment, which are black, rufous or ferruginous; face below the insertion of the antennæ and extending more or less along the front orbits, cheeks and lower hind orbits, mandibles, except teeth, palpi, scape beneath, a short line in front of tegulæ and a spot or line beneath, a line on lower margin of the pronotum just above the prosternum and the tibial spurs, ivory or yellowish-white; sometimes the front and middle coxæ are also more or less whitish; flagellum black, broadly ferruginous beneath; legs rufous, with the hind tarsi fuscous. Wings hyaline, the stigma and veins, except the subcostal median and submedian veins basally, brown, the subcostal, median and submedian veins basally, being pale yellowish; the disco-cubital vein is broken by a small stump of a vein just beyond its middle; the areolet is irregularly pentagonal, the second recurrent nervure received beyond its middle.

The head and thorax above are sparsely punctate, the pleura being rugulose punctate, the metathorax more strongly rugulose, the wrinkles in the areas, and particularly in the petiolar area, which is very long, being transverse; the areola is horse-hoof shaped, the basal lateral and the median lateral areas being confluent. The abdomen is fully twice and sometimes more than twice longer than the thorax; the petiole is punctate and somewhat aciculate to slightly beyond the spiracle, the surface beyond being smooth or only faintly punctate; dorsal segments 2 and 3 alutaceous and also punctate, the punctuation of the second being more distinct and somewhat rugulose basally, the segments beyond smooth, impunctate.

Type.—Cat. No. 5544, U. S. Nat. Museum. From Yakutat, June 21; Orca, June 26. Several specimens.

This species mimics the male of *Ichneumon brevipennis* Cresson in color, and the metathoracic characters must be closely scrutinized or it may be easily confounded with it.

CRATICINEUMON POPOFENSIS sp. nov.

Female.—Length 7 mm. Ferruginous; a frontal spot above antennæ, stemmaticum, occiput, prosternum, thoracic sutures, the transverse depression of the prothorax and metathorax entirely and base of petiole, black; flagellum brown black, with joints 8 to 11 more or less whitish or pale yellowish; palpi white; apex of hind tibiæ and more or less of hind tarsi, fuscous.

Stature similar to *Ichneumon brevipennis* Cresson, the head subquadrate, the antennæ stout, 26-jointed, the joints of the flagellum after the fourth, transverse, the first only about twice as long as thick, joints 2 to 4 gradually shortening, the fourth not longer than thick. Thorax smooth, sparsely punctate, the metathorax rugulose, the areola large, nearly horse-hoof shaped, the anterior lateral angles being obtuse, the basal lateral and middle lateral areas being confluent. The abdomen is hardly one and a half times as long as the head and thorax united; the petiole, except at apex, is finely rugulose, the second and third segments alutaceous and punctate, the punctures on the third being shallower and more sparsely distributed, the following segments being smooth, impunctate, the gastrocœli shallow and poorly defined; ovipositor subexserted, the sheaths black.

Male.—Agrees well with the female, except that the metathorax is ferruginous, except along the pectus, the flagellum being black above, ferruginous beneath, *without* an annulus, while the apices of coxæ,

first joint of trochanters and the extreme apices of hind femora and tibiae and hind tarsi, are fuscous.

Type.—Cat. No. 5545, U. S. Nat. Museum. From Popof Island, July 10. Two specimens.

Genus *Probolus* Wesmael.

PROBOLUS SUBDENTATUS sp. nov.

Male.—Length 8.5 mm. Rufous or ferruginous; the occiput, ocelli and space anteriorly to the insertion of the antennae, the space surrounding the clypeal spiracles and the sutures of the thorax, black; front and hind orbits, a spot on each side of the clypeus, a spot at summit of eyes, and the palpi, yellowish-white. Wings hyaline or only faintly tinged, the costal vein anteriorly and the stigma brownish-yellow, the internal veins darker or brown.

The head and thorax are distinctly, rather closely punctate, the metathorax being rugulose. The sutures of the thoracic sclerites, the depression at base of scutellum, the mesonotal ridge extending on to the scutellum, the depressions at the insertion of the wings, the incision between the postscutellum and the metathorax, and the hind margin of the metathorax at base of coxae and insertion of abdomen, are black. The dorsum of the metanotum is very short, the metathorax being obliquely truncate from just beyond its base, the upper hind angles subdentate, the carinae very strong and forming complete areas, the areola in outline semicircular, the spiracles being elongate. The abdomen is longer than the head and thorax united; the petiole or first segment is rather coarsely rugulose, with a hump-like elevation at its apical third, its dorsum strongly bicarinate, the carinae extending from base to apex; segments 2 and 3 rugoso-punctate, both, however, smooth toward apex, the gastrocoeli deep, transverse; fourth segment finely and sparsely punctate towards base, the segments beyond smooth or nearly so, at most very sparsely and microscopically punctate.

Type.—Cat. No. 5546, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

PLATYLABUS INCABUS Davis.

Platylabus incabus DAVIS, Trans. Am. Ent. Soc., xxiv, p. 352, ♀, 1897.

Male.—Length 8.5 mm. Agrees fairly well with Davis's description of the female except as follows: The anterior orbits have a faint much abbreviated white line opposite but a little *above* the insertion of the antennae and an abbreviated but more distinct white line on the

hind orbits; the antennæ, except a yellowish-white spot on joints 14 and 15, are wholly black; the legs are red, with the coxæ slightly at base, hind tibiæ toward apex and their tarsi *faintly*, fuscous or blackish; while the abdomen is alutaceous and feebly but distinctly punctate, especially on segments 2 and 3, the punctuation of the fourth segment very faint, the fifth and beyond alutaceous, impunctate, the petiole rugulose its entire length except a narrow transverse, smooth, shining spot at the extreme apex of the middle lobe, or space between the dorsal carinæ.

From Popof Island, July 6.

This species was originally characterized by Mr. Davis from a single female, taken by Professor Aldrich, at Moscow, Idaho.

PLATYLABUS CALIFORNICUS Cresson.

Platylabus californicus CRESSON, Proc. Acad. Nat. Sci. Phila., p. 357, 1878.—CRESSON, Trans. Am. Ent. Soc., vi, p. 201, 1877.—CRESSON, Syn. Hym. North Am., p. 191, 1887.

Type in collection of the American Entomological Society. From Kukak Bay, July 4. One female.

Tribe PHÆOGENINI.

Genus *Centeterus* Wesmæd.

CENTETERUS DORSATOR sp. nov.

Male.—Length 6 mm. Head, except face, upper orbits and a spot back of the ocelli, the antennæ, prosternum, mesosternum, anterior margin of the mesopleura, metathorax entirely, sutures of thorax above, petiole of abdomen, except at apex, and the middle and hind coxæ beneath, black; the lines on front orbits and the spot back of ocelli lemon-yellow; rest of body ferruginous, except that the first joint of the middle and hind trochanters, tips of hind tibiæ and their tarsi, and lateral blotches on dorsal abdominal segments 2 to 4 are fuscous.

The head is subquadrate, the temples broad, apparently smooth and impunctate, although with a strong lens the frontal depression is seen to be alutaceous. The thorax is smooth and shining, but with some sparse, minute punctures scattered over its surface, the metathorax being finely rugulose, the areola quadrate, open towards the base, the basal lateral and middle lateral areas confluent. The abdomen is longer than the head and thorax united, smooth and impunctate, except that the petiole and the second segment under a strong lens, are seen to have a very fine, coriaceous sculpture.

Type.—Cat. No. 5547, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission).

Genus **Eriplatys** Förster.

ERIPLATYS SITKENSIS sp. nov.

Female.—Length 4 mm. Head, scape of antennæ, thorax, hind coxæ and first segment of abdomen, black; mandibles, legs and rest of the abdomen, ferruginous; flagellum brown-black, with the first joint, the pedicel and ring-joint narrowly yellowish at apex. Wings hyaline, the stigma and veins light brown. The antennæ are rather stout, 22-jointed, thickened and convoluted toward apex, the scape very large, subglobose, obliquely truncate at apex, the first three joints of the flagellum obconic, subequal, hardly twice as long as thick at apex, the following shorter, joint 11 and beyond to last being transverse, the last cone-shaped. The head and thorax above are smooth and polished, or at most with a few, sparse, minute punctures scattered over the surface, the face and mesopleura more distinctly punctate, the metathorax rugulose and completely areolate, the areola hexagonal. The abdomen is pointed at apex and a little longer than the head and thorax united, smooth and polished, excepting that the surface of the petiole, the second dorsal segment and the third to a slight extent, if examined under a strong lens, appear very finely coriaceous, the thyridia on the second being represented by faint transverse depressed lines near the base.

Type.—Cat. No. 5548, U. S. Nat. Museum. From Sitka, June 16. One specimen.

Subfamily **CRYPTINÆ**.

Tribe **STILPNINI**.

Genus **Xestophya** Förster.

XESTOPHYA POLITA sp. nov.

Female.—Length 1.8 to 2 mm. Polished black, impunctate except the sides of the thorax and the abdomen, which are sometimes dark rufo-piceous, sometimes more or less yellowish basally. Antennæ 16- to 17-jointed (the last joint sometimes indistinctly articulated or closely united with the preceding), the flagellum is subclavate, brown-black, the first joint with an annulus at base and the pedicel yellow. Legs black or piceous black, with the sutures of the trochanters, extreme apices of femora and all tibiæ and tarsi, except the last joint, yellow. Wings hyaline, with the stigma and veins brownish-yellow or pale

yellow. The metathorax is incompletely areolated, the areola and the petiole area confluent, the lateral apical areas complete, the basal lateral and the middle lateral areas being represented by a single large area.

The abdomen varies from black to rufo-piceous, the petiole usually rufous and finely, longitudinally aciculated at apex, about thrice as long as wide; the body of abdomen viewed from above is oblong-oval or obovate, viewed from beneath it is seen to be compressed at apex; the whole surface is highly polished, impunctate, segments 1 to 3 (or 2 to 4, counting the petiole as the first) occupying most of the surface, the first the longest segment; ovipositor exerted but not as long as the basal joint of hind tarsi.

Male.—Length 1.5 to 1.8 mm. Agrees very well with the female except that the antennæ are longer, filiform, not thickened toward apex, and always 19-jointed; the abdomen is clavate, the petiole much longer and black, the body being pear-shaped, the two basal segments and sometimes the third are usually rufous, while the tibiæ are embrowned; palpi yellowish.

Type.—Cat. No. 5549, U. S. Nat. Museum. From St. Paul Island, August 15 (Fur Seal Commission). Eight specimens.

XESTOPHYA NIGRIPES sp. nov.

Male.—Length 2.5 mm. Wholly black, except as follows: An annulus at base of first joint of the flagellum, tibial spurs, sutures between the trochanters and base of femora, the extreme apex of front femora, their tibiæ at base and beneath and their tarsi, pale yellowish, rest of legs and the palpi black. Wings hyaline, the stigma and veins light brownish.

Type.—Cat. No. 5550, U. S. Nat. Museum. From St. Paul Island, August 15 (Fur Seal Commission). One specimen.

Genus *Asynocrita* Förster.

ASYNOCRITA sp.

From Unalaska. A single specimen too badly broken for describing.

Genus *Exolytus* Holmgren.

This genus is probably parasitic upon dipterous larvæ and is well represented in all boreal regions, though comparatively few have been described in the North American fauna. There are now known from Alaska eleven species (*sens. lat.*) which may be recognized by the use of the following table.

7. Clypeus black..... 8
 Clypeus not black.
 Antennæ 24-jointed, the flagellum ferruginous; clypeus, mandibles, except teeth, palpi at base, tegulæ, a spot in front, apices of front and middle coxæ, all trochanters more or less, tibial spurs and the ventral fold of abdomen, ivory or yellowish-white. Female.
E. clypeatus.
 Antennæ 23-jointed, the flagellum black; clypeus and legs, except the hind coxæ, ferruginous; palpi and tegulæ pale yellow. Male.
E. seldoviae.
8. Abdomen mostly red or segments 1 to 6 banded with red..... 12.
 Abdomen mostly black, with usually only the second and third segments red or red in part..... 9.
9. Antennæ 21-jointed or less..... 10.
 Antennæ 26-jointed.
 Third abdominal segment red or red in part, especially basally, sometimes the apex of the second segment red.
 All coxæ black; basal joint of trochanters, the femora more or less and the hind tarsi black, rest of legs rufo-testaceous.
E. rubrocinctus.
- Antennæ? broken.
 Second abdominal segment, except the extreme base, and the third segment, except at apex, red; legs, including coxæ, fulvo-ferruginous. Female.....*E. ungensis.*
10. Antennæ 20-jointed or less..... 11.
 Antennæ 21-jointed.
 Second and third abdominal segments red; legs, including coxæ, ferruginous.....*E. sarpedontis.*
11. None in this section from Alaska.
12. Antennæ 28-jointed.
 Antennæ not ringed with white.....*E. ithacæ.*
 Antennæ ringed with white.....*E. concamerus.*

EXOLYTUS PERPLEXUS sp. nov.

Male.—Length 4 to 4.5 mm. Polished black, impunctate; an annulus at base of first joint of the flagellum, sutures of trochanters, knees, tibiae beneath *sometimes* but rarely, tibial spurs and the extreme apices of the tarsal joints, testaceous. The antennae are 24-jointed, the third joint the longest, a little longer than the fourth. Wings hyaline, the stigma and veins dark brown, the costæ, median and submedian veins in the front wings toward base, and the subcostal,

median and submedian veins in the hind wings, yellow; areolet open behind. The lateral depressions of the scutellum, the mesopleura superiorly, just beneath the insertion of the wings, and the petiole of the abdomen, are striated.

Type.—Cat. No. 5563, U. S. Nat. Museum. From St. Paul Island, August (Fur Seal Commission). Three specimens.

EXOLYTUS POPOFENSIS sp. nov.

Female.—Length 6 mm. Polished black, impunctate, the mesopleura superiorly beneath the insertion of the wings and the petiole of the abdomen not striated; pedicel at apex and the ring-joint flavo-testaceous; legs more or less black, with the sutures of trochanters, tips of front and middle femora (the former almost wholly beneath), their tibiae and tarsi and the hind tarsi, testaceous; hind tarsi fuscous, the joints of the anterior and middle tarsi are also sometimes more or less subfuscous. Antennae 21-jointed. Wings hyaline, the stigma and veins brown, as in *E. perplexus*.

Male (?)—Length 4 mm. Agrees well with the female, except that the mesopleura beneath the wings and the petiole of the abdomen are coriaceous and not perfectly smooth and polished as in the opposite sex.

Type.—Cat. No. 5564, U. S. Nat. Museum. From Popof Island, August (Fur Seal Commission).

EXOLYTUS NIGER Ashmead.

Exolytus niger ASHMEAD, Fur Seals and Fur Seal Islands, Pt. IV, p. 338, ♀, 1899.

Type.—Cat. No. 4041, U. S. Nat. Museum. From Bering Island (Dr. Stejneger); Alaska, Pribilof Islands (F. A. Lucas).

EXOLYTUS SANCTIPauli sp. nov.

Female.—Length 4 to 4.5 mm. Polished black and in color and sculpture is very nearly a counterpart of *E. perplexus* from which it may, however, be easily distinguished by having only 20-jointed antennae, by the areolet in the front wings being closed by an hyaline, although distinct, vein, and by the less distinctly striated petiole of the abdomen. Two or three of the specimens have the legs colored as in *E. popofensis*.

Type.—Cat. No. 5565, U. S. Nat. Museum. From St. Paul Island, July 21 (Fur Seal Commission); Popof Island, July 9, 10.

EXOLYTUS UNGÆ sp. nov.

Male and Female.—Length 3 to 3.5 mm. Polished black, impunctate; an annulus at base of first joint of the flagellum, mandibles and legs, except as hereafter noted, pale ferruginous or yellowish; base of middle coxæ and hind legs, except sutures of trochanters, basal two-thirds of their tibiæ and the tibial spurs, black; all tarsi fuscous or subfuscous *sometimes*; palpi and tegulæ yellowish-white. Antennæ 20-jointed. Wings hyaline, the stigma and veins brown, the areolet open behind, the transverse median nervure interstitial, *or very nearly*. The mesopleura beneath the wings and the petiole of the abdomen are impunctate although the latter sometimes exhibits a faint alutaceous sculpture, more noticeable in the male.

Type.—Cat. No. 5566, U. S. Nat. Museum. From Unga, July 21; Unalaska, August 24.

EXOLYTUS ALASKENSIS sp. nov.

Female.—Length 5.5 mm. Polished black, impunctate; palpi and tegulæ yellowish-white, legs, except the hind coxæ and the first joint of their trochanters, pale ferruginous or brownish-yellow. Antennæ 20-jointed. Wings hyaline, the stigma and veins brown, the areolet closed but the closing vein is hyaline, nearly obsolete, so that without care one might easily take it to be open. Abdomen much elongate, twice longer than the thorax, the petiole smooth except towards the base, where it is feebly alutaceous.

Type.—Cat. No. 5567, U. S. Nat. Museum. From Popof Island, July 8. One specimen.

EXOLYTUS KINCAIDI sp. nov.

Female.—Length 4.5 mm. Polished black, with the transverse depressions at sides of the prothorax, the depressions at sides of scutellum and mesopleura superiorly just beneath the wings, lineated; the petiole of the abdomen has a slight median furrow at its apex and some feeble lineations on either side of the furrow. Mandibles and palpi black. Antennæ 19-jointed. Wings hyaline, the stigma and veins brownish, the areolet closed by an hyaline nervure, while the recurrent nervure at apex and the disco-cubital nervure beyond the middle are broken by *bullæ*.

Type.—Cat. No. 5568, U. S. Nat. Museum. From St. Paul Island, August 15 (Fur Seal Commission).

EXOLYTUS INSULARIS sp. nov.

Female.—Length 4 mm. In color very similar to *E. kincaidz* and agreeing with it also in having 19-jointed antennæ but readily separated by the differences brought out in the table of species—color of legs and relative length of antennal joints—and the following differences: The depressions at the sides of the pronotum are not lineated, the apex of the clypeus and the mandibles are rufous, the labial palpi yellowish, while the petiole of abdomen is smooth and without the median furrow at apex.

Type.—Cat. No. 5569, U. S. Nat. Museum. From Popof Island, July 10. One specimen.

EXOLYTUS CLYPEATUS sp. nov.

(Pl. ix, fig. 5.)

Female.—Length 6 mm. Polished black, with the clypeus, mandibles, except teeth, palpi at base, tegulæ, a spot in front of it, the apices of front and middle coxæ, all trochanters, except more or less of the first joint *above*, tibial spurs and the ventral fold of abdomen, ivory or yellowish-white; rest of legs pale ferruginous or yellowish, the middle femora basally brownish, the middle and hind coxæ and the hind femora mostly black. Antennæ 24-jointed, the flagellum ferruginous. Wings hyaline, the stigma and costal vein brownish, the internal veins paler, the areolet open, without a vestige of the second transverse cubitus. Abdomen very long, compressed more than twice longer than the head and thorax united, the petiole feebly coriaceous with the spiracles placed before its middle.

Type.—Cat. No. 5570, U. S. Nat. Museum. From Popof Island, July 11. One specimen.

EXOLYTUS SELDOVIÆ sp. nov.

Male.—Length 5.5 mm. Black, with the mandibles, legs, except hind coxæ, the apex of the second dorsal abdominal segment and the base of the third dorsal segment, red or rufo-testaceous; palpi, tegulæ and front coxæ and trochanters pale yellowish. Antennæ 23-jointed. Wings hyaline, the stigma and veins brown, the epitegulæ, subcostal vein and the veins in the hind wings toward base, pale yellowish; areolet closed by an hyaline vein. Abdomen polished, shining, the petiole elongate, lineated at the sides.

Type.—Cat. No. 5572, U. S. Nat. Museum. From Seldovia, July 4. One specimen.

EXOLYTUS RUBROCINCTUS sp. nov.

Male.—Length 6.5 mm. Polished black; palpi yellowish; the third dorsal abdominal segment, except sometimes at apex, ventral segments 2 and 3 and the legs, except coxæ, basal joint of trochanters, more or less of femora and the hind tarsi which are black, are red or rufo-testaceous. Antennæ 26-jointed. Wings hyaline, the stigma and veins brown, the epitegulæ and the subcostal vein pale yellowish, the areolet open.

Type.—Cat. No. 5571, U. S. Nat. Museum. From Popof Island, July 8. Two specimens.

EXOLYTUS UNGENSIS sp. nov.

Female.—Length 5 mm. Black; the tegulæ and legs pale ferruginous, the front and middle coxæ and trochanters yellowish; abdomen with the venter at apex and dorsal segments 2 and 3, except the former narrowly at base and the latter at apex, red. Antennæ? broken. Wings hyaline, the stigma and veins brown, the epitegulæ, subcostal, median and submedian veins pale yellowish. Abdomen smooth and polished, the petiole with a few irregular, longitudinal wrinkles, but not distinctly striated.

Type.—Cat. No. 5573, U. S. Nat. Museum. From Unga, July 21. One specimen.

Genus *Atractodes* Gravenhorst.**ATRACTODES YAKUTATENSIS** sp. nov.

Male.—Length 3.5 mm. Black, coriaceously opaque; mandibles, sutures of trochanters and knees rufo-testaceous; tegulæ and tibial spurs pale yellowish. Wings hyaline, the stigma and veins brown, the areolet open behind.

The head is transverse, at least thrice as wide as thick antero-posteriorly, the temples only about half the width of the eyes, the eyes being large, oval. The metathorax is long, areolated, the arcola complete, hexagonal. The abdomen is scarcely the length of the thorax, finely coriaceous, the petiole striate, a little longer than the second segment.

Type.—Cat. No. 5574, U. S. Nat. Museum. From Yakutat, June 21. One specimen.

Tribe *PHYGADEUONINI*.Genus *Stibeutes* Förster.*STIBEUTES NIGRITA* Ashmead.

Stibeutes nigrata ASHMEAD, Fur Seals and Fur Seal Isl., Pt. IV, p. 338, ♀, 1899.

Type.—Cat. No. 3650, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission); Copper Island, Asia (Dr. L. Stejneger).

Genus *Stiboscopus* Förster.

In this genus should be placed *Stilpnus hudsonicus* Cresson, described from Hudson Bay Territory. It is well represented in our fauna and six species have been recognized in the Alaskan material, distinguishable by the aid of the following table.

TABLE OF SPECIES.

- | | |
|---|-------------------------|
| 1. Species <i>ferruginous</i> | 6 |
| Species <i>black</i> or at least with the head and thorax black. | |
| Abdomen entirely black or at most with only a slight piceous tinge on the second segment..... | 2 |
| Abdomen not entirely black..... | 4 |
| 2. Hind coxæ alone black, the front and middle coxæ ferruginous or only black basally..... | 3 |
| All coxæ black. | |
| Legs mostly black, with the sutures of trochanters, tibiæ and the extreme apices of tarsal joints, dark rufous; antennæ 20-jointed, incrassate toward apex. Female..... | <i>S. sanctipauli</i> . |
| 3. Legs, except hind coxæ, ferruginous; antennæ 21-jointed, not incrassate toward apex. Female..... | <i>S. alaskensis</i> . |
| 4. Abdomen black, with the sutures 1 and 2 testaceous, the color sometimes extending more or less distinctly on the surrounding surface..... | 5 |
| Abdomen black, with a narrow testaceous band at base of third segment. | |
| Antennæ 24-jointed; legs mostly black with sutures of trochanters, knees, tibiæ, except at apex, and the front and middle tarsi, flavo-testaceous. Male..... | <i>S. solitarius</i> . |

5. Hind coxæ black; anterior and middle legs ferruginous or reddish, the hind legs black or fuscous, their tibiæ more or less ferruginous basally.

Antennæ 23-jointed; abdomen with the petiole shagreened, the second and following segments smooth. Male.....*S. mandibularis*.

Antennæ 21-jointed, very long; abdomen with the petiole and the second segment finely shagreened, those beyond smooth. Male.

S. sitkensis.

6. Antennæ 25-jointed; sheaths of ovipositor black; wings hyaline, the costal vein and the stigma light brown or brownish-yellow, the subcostal vein and the internal veins dark brown. Male...*S. ferrugineus*.

STIBOSCOPIUS SANCTIPauli sp. nov.

Female.—Length 2.5 mm. Polished black, the ovipositor about one-third the length of the abdomen, the sutures of the trochanters, tibiæ and the extreme apices of the tarsal joints dark rufous. Antennæ 20-jointed, thickened toward apex, the first joint of the flagellum only about two-thirds the length of the second. Wings subhyaline, the stigma and veins brown. The head is large, quadrate; the mesonotum on the disk is flat, the scutellum with a crenate furrow across the base; the metathorax is completely areolated, the areola nearly horse-hoof shaped. Abdomen polished, shining; the first segment is feebly coriaceous at sides and towards base, polished at apex, the second and third segments large, subequal, broader than long, the second a little longer than the first.

Type.—Cat. No. 5576, U. S. Nat. Museum. From St. Paul Island, August 15 (Fur Seal Commission). One specimen.

STIBOSCOPIUS ALASKENSIS sp. nov.

Female.—Length 3.4 mm. Polished black; legs, except the middle coxæ, basally and the hind coxæ ferruginous; antennæ 21-jointed, the first joint of the flagellum a little longer than the second, with a pale annulus at base. Wings hyaline, the stigma and veins yellowish. The head is transverse quadrate, the mesonotum feebly depressed posteriorly, the scutellum with a non-crenate furrow across the base, the metathorax areolated, the areola hexagonal, wider than long. Abdomen oblong-oval, similar to *S. sanctipauli*, except that the petiole or first segment is longitudinally striate.

Type.—Cat. No. 5577, U. S. Nat. Museum. From St. Paul Island, August 15 (Fur Seal Commission). One specimen.

STIBOSCOPUS SOLITARIUS sp. nov.

Male.—Length 3.5 mm. Black, the head above and the mesothorax, except the metanotum, polished, shining; abdomen with a narrow testaceous band at base of third; palpi and tegulæ yellowish-white; legs mostly black, with the sutures of the trochanters, knees, tibiæ, except at apex, and the front and middle tarsi, flavo-testaceous. Metathorax arcolated, the arcola hexagonal, longer than wide. Wings hyaline, the stigma and veins brown. Abdomen a little longer than the head and the thorax united, the first three segments finely coriaceous, opaque, the following smoother, the second segment a little longer than wide, the third a little wider than long.

Type.—Cat. No. 5578, U. S. Nat. Museum. From Popof Island, July 12. One specimen.

STIBOSCOPUS MANDIBULARIS sp. nov.

Male.—Length 4 mm. Polished black; abdominal sutures 1 and 2 testaceous; legs, except the hind tibiæ basally and the middle femora basally ferruginous. Antennæ 23-jointed, the first three joints of the flagellum subequal, the first scarcely longer than the second. Wings hyaline, the stigma and veins brown. Metathorax arcolated, the arcola hexagonal. Abdomen a little longer than the head and thorax united, polished, shining, except the petiole which is feebly wrinkled, subopaque, with two feeble, median dorsal carinæ toward base.

Type.—Cat. No. 5579, U. S. Nat. Museum. From St. Paul Island, August (Fur Seal Commission). One specimen.

STIBOSCOPUS SITKENSIS sp. nov.

Male.—Length 3.5 mm. Polished black; mandibles rufo-piccous; sutures 2 and 3 of abdomen and the legs, except hind coxæ, their femora, their tibiæ toward apex and their tarsi, ferruginous. Antennæ 21-jointed, the three or four basal joints of the flagellum elongate, the first the longest with a yellowish annulus at base. Metathorax arcolated, the carinæ strongly elevated, the arcola hexagonal, longer than wide. Wings hyaline, the stigma and veins light brown, the areolet irregularly pentagonal, receiving the second recurrent nervure much beyond its middle. Abdomen elongate, longer than the head and thorax united, the petiole and second segment shagreened, the following smooth and polished.

Type.—Cat. No. 5580, U. S. Nat. Museum. From Sitka, June 15. One specimen.

STIBOSCOPIUS FERRUGINEUS sp. nov.

Female.—Length 7 mm. Ferruginous, the antennæ and legs paler, more of a brownish-yellow; head subquadrate, coriaceous, the eyes black. Antennæ 25-jointed, slightly thickened toward apex, the first and second joint of flagellum elongate, subequal. Wings hyaline or at most only faintly tinged, the stigma and veins brown, the arcolet large, pentagonal, the sides nearly parallel. Metathorax incompletely areolated, the areola hexagonal, the lateral longitudinal carinæ and the basal and lateral median areas obliterated. Abdomen with the first three segments finely, uniformly coriaceous.

Type.—Cat. No. 5581, U. S. Nat. Museum. From Popof Island, July 9. One specimen.

Genus *Bathymetis* Förster.

This genus is well represented in North America. The following table will enable the student to separate the species found in Alaska:

TABLE OF SPECIES.

- Species *rufous* or ferruginous.....26.
 Species *black* or the head and thorax black..... 2.
2. Abdomen entirely black or at most with a piceous or testaceous tinge in one or more of the sutures..... 3.
 Abdomen not entirely black, either red or with one or more of the segments red or marked with red.....13.
3. All coxæ black or black basally.
 Antennæ 20-jointed or less. (Male 24-jointed)..... 8.
 Antennæ 21-jointed or more..... 4.
4. Antennæ less than 24-jointed. (Female 20-jointed.)
 Antennæ 24-jointed. Male. (Female 20-jointed.)
 Legs black, with the sutures or more of trochanters, apices of front and middle femora, the front tibiæ and tarsi and the middle and hind tibiæ, except at apex, testaceous; first and second joints of the flagellum about equal, fully thrice as long as thick; abdomen one-third longer than the head and thorax united, the petiole stout, finely rugulose, not distinctly aciculate except along the sides.

B. nigricornis.

5. *Antennæ* 22-jointed or less.....6
Antennæ 23-jointed. (Female 19-jointed.)
 Legs black, with the sutures of trochanters, front and middle legs except femora basally, tips of hind femora and their tibiæ, except apex, rufo-testaceous.....*B. simillima*.
6. *Antennæ* 21-jointed. Male..... 7.
Antennæ 22-jointed. Male. (Female 18-jointed.)
 Legs, except the anterior coxæ basally, the middle and hind coxæ, bases of front and middle femora and hind legs, except basal two-thirds of tibiæ which are black, ferruginous; abdomen with usually more or less of the third dorsal segment red, or the apex of the second and the base of the third segments are reddish. Male.....*B. confusa*.
7. Legs black with the sutures of trochanters, apices of femora, all tibiæ, except the hind pair at apex, and the anterior and middle tarsi more or less testaceous; first and second joints of flagellum subequal, the first slightly the longer with a pale annulus at base, about $3\frac{1}{2}$ times as long as thick; abdomen longer than the head and thorax united, the petiole finely rugulose to a little beyond the spiracles. Male.
B. unguæ.
8. *Antennæ* less than 20-jointed..... 11.
Antennæ 20-jointed.
 Females 9.
 Males 10.
9. Legs black, with the sutures of the trochanters, apices of femora (the anterior usually entirely beneath), and the tibiæ, except the posterior at apex, dark rufous, the tarsi black or fuscous; pedicel testaceous at apex; metathoracic areola hexagonal, fully as long as wide or a little longer; first joint of flagellum only about two-thirds the length of the second, the third only a little shorter than the second, joints 5 and those beyond to the last, not, or scarcely, longer than thick, the last oblong.....*B. nigricornis*.
 Legs black with the apex of front coxæ, their femora, except slightly at base above, their tibiæ and tarsi, second joint of middle and hind trochanters, apices of their femora, middle tibiæ and tarsi and hind tibiæ, except at apex, rufo-testaceous; pedicel and first joint of flagellum at base, rufo-testaceous; metathoracic areole hexagonal, a little wider than long.
 First joint of flagellum about two-thirds the length of the second, the third only a little shorter than the second, joints 7 and 8, a little thicker than long, the following to the last a little longer than thick, the last joint oblong; petiole finely coriaceous.....*B. imitator*.
 First joint of flagellum only a little longer than thick at apex, usually two-thirds the length of the second, joints 5 and 6 quadrate, the following to the last a little longer than thick, the last oblong, nearly thrice as long as thick; petiole coriaceous to the spiracles and along the sides to beyond the spiracles.....*B. simulans*.

10. All coxæ black, the anterior sometimes testaceous at apex, rest of legs mostly black, with sutures of trochanters, tips of femora, tibiæ except hind pair, and the tarsi, except the posterior, dark rufous, the middle and front tarsi with the joints more or less fuscous basally; first and second joints of flagellum equal hardly or not more than thrice longer than thick at apex.

Metathoracic areola hexagonal but much *wider* than long; fovea at base of scutellum smooth, without striæ; antennal joints 13 to 19 distinctly longer than thick..... *B. quadriceps*.

Metathoracic areola hexagonal but *longer* than wide; fovea at base of scutellum with striæ; antennal joints 13 to 19 hardly longer than thick..... *B. simulator*.

11. Antennæ 18-jointed..... 12.
Antennæ 19-jointed.

Legs black, with the sutures of trochanters apices of femora and tibiæ except the posterior at apex rufo-testaceous, tarsi black or fuscous, the extreme tips of the anterior and middle tarsal joints (rarely entirely) and the apex of the antennal pedicels testaceous.

First joint of the flagellum only two-thirds the length of the second, joints 5 to 10 not longer than thick, the last oblong, thrice as long as thick; petiole of abdomen coriaceous or finely shagreened to the spiracles. Female..... *B. simillima*.

12. Legs black, with the sutures of trochanters, tips of femora, the front and middle tibiæ and tarsi and the hind tibiæ, except at apex, rufo-testaceous; third joint of antennæ obconical, only a little longer than thick at apex and much shorter than the fourth, joints 7-10 quadrate or nearly. Female. (Male 22-jointed antennæ.)..... *B. confusa*.

13. Abdomen not entirely red, always black at base and apex.... 14.
Abdomen, except sometimes the petiole or the petiole at base, entirely red or ferruginous..... 24.

14. Abdomen with dorsal segments 2 and 3 and sometimes 4, or at least basally or in the sutures, red..... 22.
Abdomen quite differently marked, dorsal segments 2 and 3 never both red..... 15.

15. Antennæ 23-jointed or less..... 17.
Antennæ 24-jointed. Male. (Female 20-jointed).... 16.

16. Abdomen with the second suture and extreme apex of the segment, and the base of third segment or the third wholly testaceous or dark rufous; rarely with base of fourth segment red; first and second joints of flagellum equal or very nearly, the penultimate joint very distinctly longer than thick. *B. rubrocincta*.

Abdomen with second suture including the extreme apex of the second segment and the apex of the third segment, testaceous (sometimes with only the second and third sutures testaceous); second joint of flagellum a little shorter than the first, the following imperceptibly shortening the penultimate joint being only a little longer than thick.

B. imitator.

17. Antennæ 22-jointed or less..... 18.
 Antennæ 23-jointed. Male. (Female 19-jointed.)
 Abdomen with the third segment dark rufous.....*B. simillima.*
18. Antennæ 21-jointed or less..... 19.
 Antennæ 22-jointed. Males. (Female 18-jointed.)
 Abdomen with the extreme apices of the second and the third segments testaceous.....*B. confusa.*
 Abdomen with the apex of the second segment and the third entirely testaceous..... *B. confusa.*
19. Antennæ 20-jointed or less..... 20.
 Antennæ 21-jointed. Female.
 Abdomen with the apex of the second segment, second suture and the third segment basally, testaceous.....*B. ungar.*
20. Antennæ 19-jointed or less..... 21.
 Antennæ 20-jointed.
 Females. (Male 24-jointed.)
 Abdomen with base of second segment and the third more or less dark rufous.
 Length 4 mm. Metathoracic areola horse-hoof shaped; areolet receiving the second recurrent nervure before its apical third.
B. rubrocincta.
 Length 3 mm. Metathoracic areola hexagonal; areolet receiving the second recurrent nervure at its apical third.....*B. imitator.*
 Males. (Female unknown.)
 Length 3.5 mm. Third and fourth antennal joints equal, both a little longer than the fifth.....*B. quadriceps.*
 Length 4 mm. or more. Third antennal joint a little shorter than fourth, but equal to the fifth.....*B. simulator.*
21. Antennæ 19-jointed. Female.....*B. simillima.*
 Antennæ 18-jointed. Female.....*B. confusa.*
22. Antennæ 21-jointed or less..... 23.
 Antennæ 24-jointed. Male.
 Abdomen black, with dorsal segments 2 and 3 red, and sometimes the apex of the first and the base or more of the fourth, red...*B. bicolor.*
23. Antennæ 21-jointed. Male.
 None in this section known from Alaska.
 Antennæ 19-jointed. Female. (Males 23-jointed.)
 None in this section known from Alaska.

24. All coxæ red or pale, never black..... 25.
 All coxæ black.
 Antennæ 22-jointed. Female.
 None in this section known from Alaska.
 Antennæ 20-jointed. Female..... *B. bicolor*.
 25. To this section belong *Phygadenon californicus* Cr., *P. crassipes* Prov. and *P. vulgaris* Cr.
 26. None in this section are found in Alaska.

BATHYMETIS NIGRICORNIS sp. nov.

Female.—Length 3.5 mm.; ovipositor a little longer than the petiole. Polished black, the face sparsely punctate, the metathorax finely wrinkled and completely areolated; mandibles, except teeth, sutures of trochanters, knees and tibiæ, except the apex of the hind tibiæ, dark rufo-testaceous, the tarsi mostly fuscous, the anterior and middle tarsi with the apices of joints and beneath usually testaceous, rarely wholly testaceous; tegulæ and tibial spurs yellowish-white. Wings hyaline, the stigma and veins dark brown. Head quadrate, the temples full, broader than the eyes. Antennæ 20-jointed, slightly thickened toward the apex, the second and third joints of the flagellum subequal, about one-half longer than the first, the joints beyond, to the last, shorter joints 5 and 6 quadrate or nearly so, the following to the last a little wider than long, the last oblong, a little more than twice longer than thick.

Male.—Length 5 mm. Agrees well with the female except in the usual sexual differences. The head is subquadrate, the abdomen longer, clavate, one-third longer than the head and thorax united, the petiole finely rugulose, longitudinally aciculated at sides, while the antennæ are 24-jointed, the flagellum being filiform, the first and second joints of same subequal in length, or at most, with the first very slightly the longer.

Type.—Cat. No. 5582, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission).

BATHYMETIS IMITATOR sp. nov.

Female.—Length 2.8 to 3 mm.; ovipositor not longer than the petiole. Polished black, the base below the antennæ sparsely punctate, the space above flat or depressed and smooth; legs black, with the apices of front coxæ, their femora, except slightly basally above, their tibiæ and tarsi, second joint of middle and hind trochanters, apices of their femora, middle tibiæ and tarsi and the hind tibiæ, except at apex,

rufo-testaceous. Metathorax with the areola hexagonal, a little wider than long. Abdomen black, with the second segment at base and the second suture usually testaceous.

The antennæ are 20-jointed, incrassated toward apex, black, with the pedicel, and first joint of the flagellum, testaceous; the first joint of the flagellum is about two-thirds the length of the second, the third only a little shorter than the second, joints 7 and 8 a little wider than long, the following to the last a little longer than thick, the last joint being oblong.

Male.—Length 3.5 to 3.8 mm. Resembles *B. nigricornis* and agrees with it closely, except slightly in color and in two or three slight structural characters: The antennæ are 24-jointed, a little slenderer, with the first joint of the flagellum a little longer than the second: the palpi and tegulæ are yellowish-white; the legs are black, with the second joint of trochanters, the femora at apex (the front pair very broadly), the tibiæ, except the hind pair at apex, and the tarsi, except the posterior, rufo-testaceous; apices of hind tibiæ and their tarsi black or fuscous; while the abdomen is black with the first suture and the margins of the segments surrounding it, and the apex of the second segment, testaceous.

Type.—Cat. No. 5584, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission).

BATHYMETIS SIMULANS sp. nov.

Female.—Length 5 mm. Polished black; mandibles and legs, except the middle coxæ basally, the hind coxæ, first joint of trochanters, anterior and middle femora basally, the hind femora, apices of their tibiæ and their tarsi, which are black, rufo-testaceous; face below antennæ punctate, the clypeus well separated with some sparse punctures; palpi and tegulæ yellowish-white. Antennæ 20-jointed. Wings hyaline, the stigma and veins, except the median and submedian veins basally which are yellowish, brown-black; the arcolet is irregularly pentagonal, the recurrent nervure joining it beyond the middle. Abdomen black, with the apex of the petiole and the lateral membranous part and the second suture testaceous.

Type.—Cat. No. 5585, U. S. Nat. Museum. From St. Paul Island, August 15 (Fur Seal Commission).

BATHYMETIS RUBROCINCTA sp. nov.

Female.—Length 4.5 mm.; ovipositor only two-thirds the length of the petiole. Polished black, the face below the antennæ closely

punctate; palpi subfuscous; mandibles and legs mostly rufo-testaceous, a blotch on first joint of trochanters and front and middle femora basally, fuscous, the hind femora, except at apex, their tibiae at apex and their tarsi black; tegulae yellowish-white. Antennae 20-jointed, black, the pedicel testaceous at apex; flagellum imperceptibly thickened towards apex, the first joint obconical, less than two-thirds the length of the second, the third joint, if anything, very slightly longer than the second or fully as long, joints 4 and 5 a little longer than thick, 6 to last a little wider than long, the last fusiform, longer than thick at base. The metathorax is completely arcolated, the arcola hexagonal. Wings hyaline, the stigma and veins brown, the areolet receiving the second recurrent nervure beyond its middle. Abdomen oblong-oval, with the petiole rather long, segments 2 and 3 more or less dark rufous, sometimes obfuscated or dusky across the middle, or with only the sutures and basis of segments testaceous; body of abdomen smooth and highly polished, the petiole finely shagreened.

Male.—Length 4 mm. Black, with the legs colored as in female, the abdomen with the third segment more or less dark rufous, sometimes wholly rufous, the second suture testaceous. Antennae 24-jointed, the first and second joints of the flagellum equal or very nearly, about twice as long as thick.

Type.—Cat. No. 5586, U. S. Nat. Museum. From Sitka, June 16; St. Paul Island, August (Fur Seal Commission).

BATHYMETIS SIMILLIMA sp. nov.

(Pl. x, fig. 1.)

Female.—Length 2.5 to 3 mm. Polished black and colored as in *P. simulans* but distinguished by the antennae, which are 19-jointed, not 20-jointed.

The flagellum is obscure rufous basally, the first joint two-thirds the length of the second, the third joint scarcely shorter than the second, joints 5 to 10 not longer than thick.

The abdomen is most frequently entirely black, although sometimes one or two of the sutures, and the surrounding surface, or the apices of one or two of the segments are testaceous; the petiole is coriaceous or finely shagreened beyond to the spiracles; the following segments are highly polished.

Male.—Length 3.2 to 4.5 mm. Agrees fairly well with two or three of the other males described here, but for the following differences: The antennae are 23-jointed, black, with the scape beneath and an annulus at base of the flagellum testaceous, the first three joints of the

flagellum subequal, the first slightly longer than the second, all the joints delicately fluted; mandibles rufous; palpi and tegulæ yellowish; legs very variable in color, black and rufo-testaceous, most frequently with coxæ, base of front and middle femora and the hind femora black, the tips of hind tibiæ and their tarsi fuscous. Abdomen also variable in color, entirely black, or with one or more of the sutures rufo-testaceous, or with one or more of the segments testaceous or blotched with testaceous.

Type.—Cat. No. 5587, U. S. Nat. Museum. From St. Paul Island, August; Unga, July 21 (Fur Seal Commission).

BATHYMETIS CONFUSA sp. nov.

Female.—Length 3.8 mm. Polished black, the face below the antennæ sparsely punctate; palpi fuscous; mandibles, sutures of trochanters, tips of femora, the anterior and middle tibiæ and tarsi, except last joint, and the hind tibiæ, except at apex, rufo-testaceous.

Head subquadrate, the temples broader than the eyes. Antennæ 18-jointed, the flagellum very slightly and gradually thickened towards apex, the first and third joints of the flagellum of an equal length, a little shorter than the second, joints 7 to 9 quadrate, not longer than wide, the following to the last a little longer than wide, the last joint oblong, nearly twice as long as the penultimate. Wings hyaline, the stigma and veins brown-black, the tegulæ piceous, the epitegulæ and submedian vein pale yellowish. Abdomen oblong, polished black, one-third longer than the head and thorax united, the ovipositor not longer than the petiole, the latter finely coriaceous to its apical third.

Male.—Length 4 to 4.5 mm. Differs in having 22-jointed antennæ, the first and second flagellar joints equal, a little longer than the third; tegulæ pale yellowish; legs ferruginous with the coxæ and the hind legs, except the basal two-thirds of the tibiæ, black, the front coxæ ferruginous at apex, while the front and middle femora are more or less black or fuscous basally. Abdomen black with the third dorsal segment more or less red, or the second at apex and the third at base are red.

Type.—Cat. No. 5588, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission).

BATHYMETIS UNGÆ sp. nov.

Male.—Length 4 to 4.5 mm. Polished black, the face distinctly punctate, the fovea at base of scutellum with striæ at bottom, the met-

anotum finely wrinkled; mandibles and tegulae dark rufo-piceous; palpi fuscous; sutures of trochanters, the anterior tibiae entirely, the middle tibiae, except at apex and the hind tibiae beneath, rufo-testaceous; hind tibiae outwardly or above, and all tarsi, black or fuscous. Head quadrate. Antennae 21-jointed, the first joint of the flagellum the longest joint, as long as the third and fourth joints united, the second a little shorter than the first, but one-half longer than the third. Wings subfuscous, the stigma and veins brown-black, the outer vein of the areolet slender and pellucid. Abdomen elongate, polished and shining, except the petiole, which is subopaque, coriaceous, with some irregular, short aciculations.

Type.—Cat. No. 5589, U. S. Nat. Museum. From Unga, July 21 (Fur Seal Commission).

BATHYMETIS QUADRICEPS sp. nov.

Male.—Length 3.5 mm. Polished black, the face below the antennae finely, closely punctate; palpi fuscous; a narrow annulus at base of first joint of flagellum, mandibles, sutures of trochanters, knees, anterior and middle tibiae, and more or less of their tarsi rufo-testaceous; tegulae rufo-piceous; epitegulae and submedian vein yellowish-white. Antennae 20-jointed, joints 3 and 4 equal, a little longer than the fifth, joints 13 to 19 distinctly longer than thick, the last joint conical. Scutellum with a smooth furrow across the base. Metathorax feebly wrinkled but shining, and completely areolated, the areola hexagonal, much wider than long. Wings hyaline, the stigma and veins brown, the areolet pentagonal, receiving the second recurrent nervure at its middle. Abdomen clavate, smooth and shining, except the petiole, which is feebly alutaceous, with the spiracles somewhat prominent.

Type.—Cat. No. 5590, U. S. Nat. Museum. From Popof Island, July 7; St. Paul Island, August 15 (Fur Seal Commission).

BATHYMETIS SIMULATOR sp. nov.

Male.—Length 4.5 mm. Agrees very closely with *B. quadriceps* in color and in having 20-jointed antennae, but may be separated readily by the following differences: The palpi are pale yellowish, not fuscous; antennal joints 13 to 19 are not, or scarcely, longer than thick; the transverse furrow at base of the scutellum is finely striate at the bottom; the metanotum is more coarsely wrinkled, with the areola longer than wide; the stigma and veins are darker brown, almost black, the areolet receiving the second recurrent

nervure a little beyond the middle; while the petiole of the abdomen is stouter, finely coriaceous, except at apex, with the spiracles normal.

Type.—Cat. No. 5591, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission).

BATHYMETIS BICOLOR sp. nov.

Female.—Length 5 to 5.5 mm. Head, thorax, antennæ, coxæ, first joint of trochanters, and basal segment of abdomen, except sometimes apically, are black; rest of legs and abdomen red, sometimes the basal two or three joints of the antennæ are more or less ferruginous. The head is transverse, the temples rounded. The antennæ are 20-jointed, the flagellum being thickened towards apex, the first joint of same being the longest joint, about twice as long as thick at apex, the following joints to the 5th gradually shortening, joint 6 and those beyond being a little wider than long, the last oblong. Wings oblong, the stigma and veins brown, the epitegulæ yellowish-white, the arcolet receiving the second recurrent nervure at or very near its middle.

Male.—Length 5.5 to 6 mm. Agrees well with the female in color except that the apex of the fourth abdominal segment and the following segments are black, while the antennæ are longer, filiform, 24-jointed, the third joint only a little longer than the fourth, the following joints to the last very gradually and slightly shortening, but none wider than long.

Type.—Cat. No. 5592, U. S. Nat. Museum. From Berg Bay, June 10.

Genus *Plectocryptus* Thomson.

Two species taken in Alaska belong in this genus; they may be separated as follows:

1. Ferruginous, with sutures of thorax black.

Antennæ less than 26-jointed..... 2

Antennæ 26-jointed.

Flagellum black, joints 6 to 12 yellowish-white, the second and third joints about equal in length, not much longer than thick at apex, shorter than the first *P. yakutatensis*.

2. Antennæ 24-jointed, brownish-yellow to joint 14 or 15, beyond fuscous or black; flagellar joints 2 and 3 equal, scarcely longer than thick and shorter than the first *P. popofensis*.

PLECTOCRYPTUS YAKUTATENSIS sp. nov.

(Pl. ix, fig. 6.)

Female.—Length 7 mm.; ovipositor as long as the first two joints of hind tarsi. Ferruginous, with the sutures of the thorax and the antennæ toward apex black. Antennæ 26-jointed, incrassated, the pedicel and joints 1 to 5 or 6 of flagellum fuscous, joints 14 and beyond black; the first joint of the flagellum is about twice as long as thick, the second and those beyond to the fifth shortening, those beyond to the last broadening and all wider than long. Wings hyaline, the stigma and veins brown, the costæ and basal veins blackish, the areolet irregularly pentagonal, receiving the second recurrent nervure at its apical third. Metathorax areolated but with the basal lateral and the middle lateral areas confluent, the spiracles elongate. Abdomen with the petiole and second segment distinctly punctate, the third segment feebly and indistinctly punctate, the following segments smooth and shining.

Type.—Cat. No. 5593, U. S. Nat. Museum. From Yakutat, June 21; Muir Glacier; Sitka (Fur Seal Commission).

PLECTOCRYPTUS POPOFENSIS sp. nov.

Female.—Length 5.5 mm.; ovipositor a little longer than the basal joint of hind tarsi. Ferruginous, with the sutures of the thoracic sclerites black; palpi yellowish-white; antennæ fuscous or blackish toward apex. The head is quadrate. The antennæ are 24-jointed, stout, strongly incrassated toward apex, the scape large, subglobose, the flagellum involuted, the first joint of same being about twice as long as thick, the following joints to the last, after the third, transverse, the last oblong. The thorax is minutely, sparsely punctate, the mesopleura from the discal impression posteriorly, being closely punctate; the metathorax is quadrate, impressed behind and rugulose, the areola large, quadrate, the basal lateral and the middle lateral areas confluent. Wings hyaline, the stigma and veins brown, the areolet rather large, irregularly pentagonal, receiving the second recurrent nervure beyond the middle. The abdomen is hardly longer than the head and thorax united, smooth and polished, except the petiole and the second dorsal segment which are punctate.

Type.—Cat. No. 5594, U. S. Nat. Museum. From Popof Island, July 8. One specimen.

This species in color mimics *Ichneumon popofensis* and, but for some slight structural characters, is scarcely distinguishable from it.

Genus *Microcryptus* Thomson.

TABLE OF SPECIES.

Black; all coxæ black.

Legs ferruginous; abdomen black, with the apices of dorsal segments 2, 3 and 4 ferruginous. Male.....*M. trifasciatus*.

Legs black and ferruginous; scape beneath, anterior and middle coxæ at apex and trochanters pale yellowish; abdomen black with the second dorsal segment at apex narrowly, the whole of the third and the middle of the fourth dorsal segments ferruginous...*M. alaskensis*.

MICROCRYPTUS TRIFASCIATUS sp. nov.

Male.—Length 5.4 mm. Black, coriaceous; palpi fuscous; epitegulæ yellowish-white; legs, except coxæ and first joint of trochanters and apical margins of dorsal abdominal segments 2, 3 and 4, the latter very narrowly, ferruginous; the coxæ, first joint of the trochanter and abdomen black. Wings hyaline, the stigma and veins brown, the areolet pentagonal, receiving the recurrent nervure very slightly beyond the middle, the submedian cell a little longer than the median.

Type.—Cat. No. 5595, U. S. Nat. Museum. From St. Paul Island, August 16 (Fur Seal Commission).

MICROCRYPTUS ALASKENSIS sp. nov.

Male.—Length 4.6 mm. Black; scape beneath, palpi, tegulæ, epitegulæ, apices of front and middle coxæ, their trochanters and the tibial spurs ivory or yellowish-white; rest of legs, except as noted, ferruginous, the front and middle coxæ black or fuscous, the hind legs mostly black, with the second joint of trochanters and the tibiæ basally ferruginous; mandibles and the extreme apex of dorsal abdominal segment 2, the whole of 3 and most of 4, rufous. Wings hyaline, the stigma and veins brown. Metathorax completely areolated. Abdomen, except the petiole which is aciculate and the second segment which is feebly shagreened, smooth and shining.

Type.—Cat. No. 5575, U. S. Nat. Museum. From Sitka, June 16. One specimen.

Genus *Plesiognathus* Förster.

PLESIOGNATHUS RUBROCINCTUS sp. nov.

Male.—Length 4 mm. Polished black, the face finely punctate and clothed with a sericeous pile; mandibles and legs, except coxæ, first joint of trochanters, front and middle femora basally, hind femora at

basal two thirds, apex of hind tibiae and their tarsi, which are black or fuscous, pale ferruginous; palpi and tegulae yellowish-white; abdomen, except sutures 2 and 3 and most of second segment which are red, black. The head is quadrate, the temples broad. Antennae 23-jointed, black, except a pale annulus at base of third joint, the third and fourth joints about equal in length or very nearly, about thrice as long as thick, the following joints to the last very gradually shortening, the penultimate being only a little longer than thick, the last fusiform, about as long as the two preceding united. Wings hyaline, the stigma and veins brown, the areolet pentagonal, receiving the second recurrent nervure very near its middle or only a little beyond it, the submedian cell a little longer than the median. The metathorax is finely wrinkled and completely areolated with the areola pentagonal, longer than wide. Abdomen elongate, smooth and polished, except the petiole which is finely coriaceous, with some irregular longitudinal raised lines and with two delicate dorsal carinae that become obsolete beyond the spiracles just before attaining the apex of the segment.

Type.—Cat. No. 4042, U. S. Nat. Museum. From Pribilof Islands (Fur Seal Commission).

Genus *Hedylus* Förster.

HEDYLUS CRASSICORNIS Ashmead.

Hedylus crassicornis ASHMEAD, Fur Seals and Fur Seal Isl., Pt. IV, p. 339, ♀, 1899.

Type.—Cat. No. 4043, U. S. Nat. Museum. From Bering Island (Mr. Barrett-Hamilton).

HEDYLUS sp.

Belkofski. One badly broken female specimen, not in a condition for describing.

Genus *Bachia* Förster.

BACHIA NIGRA Ashmead.

Bachia nigra ASHMEAD, Fur Seals and Fur Seal Isl., Pt. IV, p. 340, ♀, 1899.

Type.—Cat. No. 4044, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission); Bering Island, July, 1897 (Mr. Barrett-Hamilton).

Tribe *HEMITELINI*.Genus *Spinolia* Förster.*SPINOLIA MINUTA* sp. nov.

Female.—Length 2 mm. Polished black; legs, except hind coxæ, ferruginous, the hind femora faintly dusky above. Antennæ 20-jointed, slightly thickened toward apex, the scape black, the pedicel yellow, the flagellum brown-black, the first joint being the longest joint. Wings hyaline, narrowed and somewhat abbreviated, the stigma and veins pale yellowish, the arcolet entirely absent, the first abscissa of the radius oblique and interstitial with the second recurrent nervure, and having the same direction, the second abscissa of the radius being strongly curved upwards; the third discoidal cell is very narrow at base.

Type.—Cat. No. 5996, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission). One specimen.

Genus *Acrolyta* Förster.*ACROLYTA KARLUKENSIS* sp. nov.

Female.—Length 2.5 mm. Ovipositor not longer than the petiole. Polished black; basal half, or more, of the second dorsal abdominal segment and sometimes the base of the third narrowly at the middle, red; petiole longitudinally aciculated; mandibles and legs pale yellowish, the coxæ, femora and hind tibiæ fuscous or brownish. Antennæ 20-jointed, black, the third joint long, cylindrical, about six times as long as thick, with a pale annulus at base, but only a little longer than the fourth. Wings hyaline, the stigma and veins light brown.

Type.—Cat. No. 5597, U. S. Nat. Museum. From Karluk (Fur Seal Commission). One specimen.

ACROLYTA ACICULATA sp. nov.

Male.—Length 3.5 mm. Polished black, the clypeus rugosely punctate, the face above alutaceous; mandibles, sutures of trochanters, apices of the femora and the anterior and middle femora beneath, their tibiæ, except the hind pair at apex and tarsi, except middle and hind pairs, rufo-testaceous; tips of hind tibiæ and hind tarsi more or less fuscous or subfuscous. Wings hyaline, the stigma and veins reddish-brown, the arcolet more or less partly open behind. Antennæ 24-jointed, the first joint of the flagellum about one third longer than the second, with a pale annulus at extreme base. Abdomen clavate,

smooth and shining, except the petiole which is almost as long as segments 2 and 3 united, and longitudinally striate or aciculate.

Type.—Cat. No. 5583, U. S. Nat. Museum. From Sitka, June 16; St. Paul Island (Fur Seal Commission).

Genus **Thestis** Förster.

THESTIS TRICINCTA sp. nov.

Female.—Length 3.5 mm.; ovipositor about half the length of the abdomen. Polished black, except the petiole and second segment of the abdomen which are opaque and coriaceous; the abdominal segments 2 and 3 at apex are yellow, while the extreme apex of the fourth segment has a testaceous tinge; clypeus, mandibles, palpi, tegulae and the anterior and middle coxae and trochanters are yellowish-white; rest of legs, except the front pair and the hind pair in part, ferruginous, the front legs yellowish, the hind coxae and femora black, their tarsi fuscous; flagellum brown, yellowish beneath near base. Eyes very large, convergent below and leaving no malar space. Thorax with the parapsidal furrows distinct, converging and uniting a little beyond the middle of the mesonotum. Metathorax constricted at base, completely and strongly areolated. Wings hyaline, the stigma and veins light brown.

Type.—Cat. No. 5598, U. S. Nat. Museum. From Popof Island, July 8; Unga, July 7.

This is one of the genera placed by Förster in this group; I think it should be removed to the tribe *Plectiscini*. It seems to fall in naturally between *Symphylus* and *Eusterinx*.

Genus **Aclastus** Förster.

ACLASTUS RUFIPES sp. nov.

Female.—Length 3.2 mm.; ovipositor shorter than the petiole. Polished black: palpi fuscous; legs, except hind coxae, ferruginous, the tibial spurs and tarsi paler, the hind coxae black. Antennae 21-jointed, brown-black, the pedicel yellowish, the first joint of the flagellum more than thrice longer than thick, longer than the second. Metathorax short, wrinkled and completely areolated, the areola hexagonal, wider than long, the petiolar area very long. Abdomen broadly oval, smooth and polished, except the petiole which is longitudinally striate.

Type.—Cat. No. 5999, U. S. Nat. Museum. From St. Paul Island, August 16 (Fur Seal Commission).

Genus **Habromma** Förster.**HABROMMA NIGRUM** sp. nov.

Male.—Length 3 mm. Polished black; apices of front femora and their tibiæ and tarsi yellowish; middle tibiæ and tarsi and hind tibiæ obscure ferruginous, the tips of the hind tibiæ and their tarsi fuscous. Antennæ 20-jointed, the third joint the longest, fully thrice as long as thick, a little longer than the fourth. Eyes faintly hairy. Thorax with the parapsidal furrows distinct anteriorly, obsolete at the middle, the metathorax wrinkled, completely areolated except that the basal lateral and the middle lateral areas are confluent. Abdomen clavate, highly polished, except that the petiole is wrinkled and carinate, nearly of a uniform thickness throughout, only a little narrower before the spiracles, the dorsal carinæ parallel and extending clear to the apex.

Type.—Cat. No. 5600, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission).

Genus **Algina** Förster.**ALGINA ALASKENSIS** sp. nov.

Female.—Length 4 mm.; ovipositor half the length of the abdomen. Polished black, except the metathorax and the first and second dorsal segments of the abdomen which are finely coriaceous; sutures of trochanters, knees, tibiæ and tarsi testaceous, the hind tarsi and tibiæ toward apex fuscous. Head large, quadrate. Antennæ 21-jointed, fuscous toward apex, blackish toward base, the apices of joints 2 to 5 narrowly testaceous. Metathorax squarely truncate posteriorly, the metanotum completely areolated, the petiolar area confluent with the apical middle area. Petiole of abdomen stout, at apex nearly as wide as long. Wings hyaline, the stigma, except a spot at base, and the veins brown; spot at base of stigma, tegulæ and epitegulæ yellowish-white.

Type.—Cat. No. 5601, U. S. Nat. Museum. From Popof Island.

Genus **Ænoplex** Förster.**ÆNOPLEX RUFIPES** sp. nov.

Male.—Length 6 mm. Rather robust, black and shining, although sparsely and distinctly punctate, the face below the antennæ opaque, closely confluent punctate, the pronotal depressions lineate, the mesopleura rugulose, the metathorax very coarsely rugulose and deeply exca-

vated posteriorly, the clypeus shining with some sparse punctures; palpi yellowish-white; scape beneath, a spot on mandibles, and the front and middle trochanters yellowish; coxæ black; front and middle legs reddish-yellow, the hind legs red, their tarsi fuscous.

Antennæ 26-jointed, the third joint the longest, distinctly longer than the fourth and a little more than thrice as long as thick. Wings hyaline, the stigma and veins dark brown. Abdomen black, with the apex of the second dorsal segment, the third segment entirely and a tinge at base of fourth, red; the petiole is stout, shagreened and carinate, the lateral and dorsal carinæ extending to apex; the apex with some longitudinal striæ between the dorsal carinæ; the second segment is coriaceous except at the apical third or fourth, the apical third or fourth of the second segment and the following segments smooth and polished.

Type.—Cat. No. 5602, U. S. Nat. Museum. From Kodiak, July 20. One specimen.

Genus **Philonygus** Förster.

PHILONYGUS ALASKENSIS sp. nov.

Male.—Length 3.6 mm. Elongate, shining black; face below the antennæ finely punctate, *above* and the cheeks and temples polished, impunctate; palpi, except the two apical joints, tegulæ and sutures of trochanters, yellowish-white; a spot on mandibles, the knees and the front and middle femora *beneath*, testaceous.

Antennæ 22-jointed, as long as the body, the third and fourth joints the longest, and of an equal length, although only a little longer than the fifth. Wings hyaline, the stigma and veins brown-black. The parapsidal furrows are indicated anteriorly by punctate lines. The metathorax is finely wrinkled but shining and completely areolated. Abdomen elongate, clavate, the petiole and the second segment opaque, coriaceous, the third segment feebly coriaceous but shining, the following smooth or nearly so and shining.

Type.—Cat. No. 5603, U. S. Nat. Museum. From Popof Island, July 11.

PHILONYGUS GLACIALIS sp. nov.

Male.—Length 6.5 mm. Polished black; palpi fuscous; mandibles and tegulæ black; apical half or more of front and middle femora, and their tibiæ, ferruginous. Antennæ 23-jointed, black, shorter than the body. Wings hyaline, the stigma and veins dark-brown. The

parapsidal furrows are distinct to beyond the middle of the mesonotum, while the metathorax is shining and completely areolated.

Type.—Cat. No. 5745, U. S. Nat. Museum. From Lowe Inlet, June 3.

Genus *Ilapinastes* Förster.

ILAPINASTES INCERTUS sp. nov.

Male.—Length 3.5 mm. Polished black, the face closely punctate, palpi yellowish with two or three of the joints dusky medially; tegulæ, sutures of the trochanters, front and middle knees and their tibiæ *beneath* and the tibial spurs, yellowish; rest of legs black or fuscous. Wings hyaline, the stigma and veins brown, the stigma with a whitish spot at base. Abdomen black, with the third segment at its extreme apex and a narrow band at base, testaceous; the petiole is punctate, the second segment coriaceous, the following smooth and impunctate, except that the third segment exhibits, under a strong lens, a feeble punctuation towards its base.

Type.—Cat. No. 5604, U. S. Nat. Museum. From Popof Island, July 11.

Genus *Isochresta* Förster.

ISOCHRESTA UNICINCTA sp. nov.

Male.—Length 3.6 mm. Polished black, the face faintly punctate just beneath the insertion of the antennæ and sericeous; sutures of trochanters, apices of femora, all tibiæ and the front and middle tarsi, yellowish; the apex of the hind tibiæ is subfuscous, their tarsi fuscous. The abdomen except the third segment is black, the third segment having a testaceous band across the base; the petiole is coriaceous and bicarinate to beyond the spiracles. Antennæ 20-jointed, with the third joint a little longer than the fourth. Metathorax finely rugulose and completely areolated.

Type.—Cat. No. 5605, U. S. Nat. Museum. From St. Paul Island, August 16 (Fur Seal Commission).

Tribe *PEZOMACHINI*.

Genus *Thaumatotypus* Förster.

THAUMATOTYPUS ALASKENSIS (Ashmead).

Cremnodes alaskensis ASHMEAD, Trans. Am. Ent. Soc., XXIII, p. 211, ♀, 1896.

Type.—Cat. No. 3717, U. S. Nat. Museum. From Wrangell (Professor H. F. Wickham).

Genus *Theroscopus* Förster.

Three of the Alaskan pezomachines fall in this genus and may be tabulated as follows :

TABLE OF SPECIES.

- | | |
|---|----|
| 1. Winged..... | 3. |
| Wingless..... | 2. |
| 2. Black ; legs, including coxæ, red. Female..... <i>T. rufipes</i> . | |
| Ferruginous, the head alone black. Female..... <i>T. kukakensis</i> . | |
| 3. Body, except a reddish tinge at apex of second abdominal segment, black ; legs honey-yellow, with all coxæ, first joint of trochanters and hind femora black, the front and middle femora basally and the apices of hind tibiæ and joints of their tarsi, fuscous. Male. | |
| <i>T. popofensis</i> . | |

THEROSCOPUS RUFIPES sp. nov.

Female.—Length 3.5 mm. Black, subopaque, coriaceous ; pedicel and annulus at base of first joint of flagellum flavo-testaceous ; mandibles rufo-piceous ; legs, including coxæ, rufo-testaceous.

Head large, subquadrate, much wider than the thorax, the temples full, as wide as the eyes. Thorax constricted at the middle, the scutellum small but distinct. Wings wanting or at most represented by a white scale. Metathorax obliquely truncate posteriorly, without a distinct transverse carina, the latter being represented by a trace only at the upper hind angles of the truncature. The abdomen and antennæ are broken in the single specimen and cannot be described in detail.

Male.—Length 2.2 mm. Apterous and agrees well with the female, except in its much smaller size and in having the legs paler, more decidedly yellowish than rufous. The antennæ are 19-jointed, with the flagellum brown. The abdomen is about one third longer than the head and thorax united, black and shining, except the claspers which are large and broad, and dark rufous.

Type.—Cat. No. 5606, U. S. Nat. Museum. From St. Paul Island, August 13 (Fur Seal Commission). Two specimens.

THEROSCOPUS KUKAKENSIS sp. nov.

Female.—Length 3 mm. ; ovipositor about the length of the petiole. Pale ferruginous, with the head and the sheaths of the ovipositor black ; antennæ and legs brownish-yellow ; head and thorax coriaceous, opaque, the abdomen smoother and more shining although feebly coriaceous.

The head is large, transverse, nearly twice the width of the thorax, with the temples rounded, not quite the width of the eyes. The thorax is constricted near the middle, the scutellum being only feebly differentiated by a small elevation which is not distinctly separated from the mesonotum. Metathorax rounded off posteriorly and without a trace of the transverse apical carina.

Type.—Cat. No. 5607, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

THEROSCOPUS POPOFENSIS sp. nov.

Male.—Length 4.4 mm. Black, subopaque, coriaceous, the abdomen shining with a piceous or rufous tinge at apex of the second segment; palpi fuscous; first joint of the flagellum with a yellowish annulus at extreme base; legs honey-yellow, with the coxæ, first joint of trochanters and the hind femora black; tips of hind tibiæ, their tarsi, more or less, except at apices of joints and beneath, and the middle and front femora *above* basally, fuscous. Wings hyaline, the stigma dark brown but yellowish at base and between the parastigma and stigma, the internal veins brownish, the tegulæ and the longitudinal veins at the base of the wings pale yellowish. The antennæ are 22- or 23-jointed, not quite the length of the body, the first joint of the flagellum the longest although only a little longer than the second, the joints beyond imperceptibly shortening. The metathorax has the pleural and transverse apical carinæ distinct and there is also a more or less completely defined hexagonal area.

Type.—Cat. No. 5608, U. S. Nat. Museum. From Popof Island. One specimen.

Genus *Pezomachus* Gravenhorst.

PEZOMACHUS NIGRELLUS sp. nov.

Male and Female.—Length 1.5 to 2 mm. Entirely black and shining although the surface is feebly alutaceously sculptured; legs black or dark fuscous, with usually the sutures of the trochanters, knees and the front and middle tibiæ and tarsi and sometimes the hind tibiæ basally, rufo-testaceous, rarely with all the tibiæ and tarsi rufo-testaceous.

The antennæ are as long as or a little longer than the body, in the female 18-jointed, in the male 20-jointed, the first joint of the flagellum being slightly the longest and always with a yellowish annulus at the extreme base. Both sexes are apterous. The metathorax is some-

what squarely and abruptly truncate posteriorly, the truncature being encircled by a delicate carina. The abdomen in the female is oblong-oval, about thrice the width of the thorax; above it is highly convex, beneath flat, the ovipositor being short, hardly the length of the petiole, dorsal segments 2 to 4 subequal, the second not or scarcely shorter than the petiole. In the male the abdomen is much narrower, scarcely twice as wide as the thorax, with large broad, dark rufous claspers; otherwise hardly distinguishable from the female.

Type.—Cat. No. 4015, U. S. Nat. Museum. From St. Paul Island, Pribilof Islands (Fur Seal Commission). 81 specimens representing both sexes.

PEZOMACHIUS OBESUS sp. nov.

Female.—Length 3.5 mm. Black and shining; mandibles and legs, including coxæ, uniformly pale ferruginous or brownish-yellow; flagellum light brown, the pedicel and an annulus at base of first joint, pale yellowish. The head is large, quadrate, shining, the temples full, as wide as the eyes; antennæ 19-jointed, about two thirds the length of the body; the thorax constricted a little beyond the middle, its anterior lobe being distinctly the longer, the scutellum entirely wanting, the metathorax obliquely truncate posteriorly, the truncature surrounded by a delicate carina, while its disk above has a small central fovea or impression. The abdomen is large, swollen, oblong, oval; across its widest part it is fully thrice the width of the thorax, dorsal segments 2 and 3 subequal, 4 and 5 shorter; ovipositor short, not longer than the petiole.

Type.—Cat. No. 5609, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission).

PEZOMACHIUS ALASKENSIS Ashmead.

Pezomachus alaskensis ASHMEAD, Proc. U. S. Nat. Mus., XII, p. 421, ♀, 1890.

Type.—Cat. No. 2052, U. S. Nat. Museum. From Nushagak River (Chas. W. McKay).

Tribe *CRYPTINI*.

Genus *Cryptoideus* Ashmead.

CRYPTOIDEUS SITKENSIS sp. nov.

Female.—Length 10 mm.; ovipositor two-thirds the length of the abdomen. Ferruginous with the head and the sutures of the thorax black; antennæ blackish toward apex, the first three joints of the

flagellum elongate, the first the longest, about seven times as long as thick. Head closely, rugulose punctate, the clypeus with a median tooth anteriorly. Thorax smooth and shining but sparsely punctate, the parapsidal furrows distinct anteriorly for more than half the length of the mesonotum; the metathorax has two transverse carinæ and a more or less complete areola, the lateral carinæ of same being however very delicate; spiracles oval but not large. Wings hyaline, with a small but distinct fuscous cloud beneath the stigma; the disco-cubital vein is broken by a long stump of a vein at its middle; areolet pentagonal, narrowed above. The abdomen is longer than the head and thorax united, the petiole being smooth, elbowed at its apical third and with two dorsal carinæ that extend a little beyond the spiracles; dorsal segments finely, closely punctulate or shagreened, the sculpture of segment 5 and beyond being finer and less distinct.

Type.—Cat. No. 5610, U. S. Nat. Museum. From Sitka, June 16. One specimen.

Differs from the type species of *Cryptoides* in having the apical transverse carina complete, but agrees otherwise in all essential generic characters.

Subfamily *PIMPLINÆ*.

Tribe *LISSONOTINI*.

Genus *Himertosoma* Schmiedeknecht.¹

HIMERTOSOMA SCHMIEDEKNECHTI sp. nov.

Male.—Length 4.5 mm. Black; face below the insertion of the antennæ, except a short median line at base, cheeks, mandibles, palpi, tegulæ, and the front and middle coxæ and trochanters and the second joint of the hind trochanters, yellow or yellowish-white; rest of front and middle legs fulvous, the hind legs black. Wings hyaline, the stigma and veins brownish-yellow, the venation similar to that in the genus *Lampronota* except that the submedian cell is fully as long as the median, or a little longer, the disco-cubital vein being curved, while the transverse median nervure in the hind wings is broken far below the middle. Abdomen polished black, except the petiole which is finely wrinkled and bicarinate, the ventral fold more or less yellowish or whitish.

¹This genus and *Ecthodoca* Schmiedeknecht, do not appear in my classification of the Ichneumon Flies (Proc. U. S. Nat. Mus., xxiii, 1890); they were characterized after it was submitted for publication, *vide* Zool. Jahrb. Jena, Bd. xiii, 1890, pp. 303, 306.

Type.—Cat. No. 5611, U. S. Nat. Museum. From Yakutat, June 24. One male specimen.

Named in honor of Dr. O. Schmiedeknecht, the distinguished hymenopterologist of Blankenburg, Germany, who has so ably monographed the *Pimplinæ* of the European fauna.

Genus *Lampronota* Haliday.

LAMPRONOTA LUGUBRIS Cresson.

Lampronota? lugubris CRESSON, Proc. Acad. Nat. Sci. Phila., p. 379, ♀, 1878.—CRESSON, Syn. Hym. North America, p. 219, 1887.

Cylloceria fuscolina DAVIS, Trans. Am. Ent. Soc., xxiv, p. 371, ♂, 1897.

Type in Collection of the American Entomological Society. From Popof Island, July 10; Unalaska, August 24. Three male specimens.

Originally described by Cresson from a single female collected at Lake Quesnel, British Columbia. The male was described as *Cylloceria fuscolina* by Davis in 1897. It resembles the male of *Lampronota occidentalis* Cresson, but is at once separated by having all the coxæ black, the first joint of the trochanters being dusky above, while the hind tibiæ and tarsi are entirely black.

Genus *Phytodietus* Gravenhorst.

Two species belonging to this genus have been found in Alaska and may be tabulated as follows:

TABLE OF SPECIES.

Black; extreme apices of dorsal segments 2 to 6 more or less white.

Clypeus yellow, the face above black; all coxæ, except the apices of front and middle pairs which are whitish, black.....*P. clypearius*.

Clypeus and the face lemon-yellow; front and middle coxæ and trochanters white, the hind legs, except the second joint of the trochanters, black.....*P. flavifrons*.

PHYTODIETUS CLYPEARIUS sp. nov.

Male and Female.—Length 5.5 mm. Polished black, the face coriaceous; clypeus, mandibles, palpi, tegulæ, the extreme tips of dorsal abdominal segments 3 to 6, or the sutures, the tips of front tibiæ and more or less of the apices of the front and middle coxæ, yellow or yellowish-white; rest of legs, except coxæ, basal joint of hind trochanters, extreme apex of their femora and their tibiæ and tarsi which are black, fulvous, the middle tibiæ *above* and their tarsi usually

fuscous. Wings hyaline, the stigma and veins light brown, the areolet rather long, oblique, while the submedian cell is distinctly longer than the median. Abdomen polished black, subcompressed at apex, the petiole with two abbreviated carinæ at basal third, the ovipositor about the length of the abdomen.

Type.—Cat. No. 5612, U. S. Nat. Museum. From Yakutat, June 21.

PHYTODIETUS FLAVIFRONS sp. nov.

Male.—Length 6 mm. Polished black; a dot on vertex above each eye, the face below the antennæ, the cheeks and the mandibles, lemon-yellow; palpi, scape and pedicel *beneath*, tegulæ, a spot beneath, a spot on prosternum anteriorly, front and middle coxæ and trochanters, tibial spurs and second joint of hind trochanters, yellowish-white; rest of legs, except the hind pair, fulvous, hind legs black, their femora mostly red, with sometimes the extreme base and apex subfuscous; otherwise in venation and structural characters as in *P. clypearius*. One specimen has the hind femora wholly rufous.

Type.—Cat. No. 5613, U. S. Nat. Museum. From Yakutat, June 21; Orca, June 24.

Genus *Trevoria* Ashmead.

TREVORIA YAKUTATENSIS sp. nov.

(Pl. x, fig. 3.)

Male.—Length 8 mm. Black; clypeus ferruginous, distinctly separated from the face; the legs, except the coxæ and trochanters, the hind tibiæ and tarsi and the middle tarsi which are black, are red. Wings hyaline, the stigma and veins brown, the areolet pentagonal, closed by a hyaline vein, receiving the second recurrent nervure beyond its middle, the submedian cell distinctly longer than the middle, while the transverse median nervure in the hind wings is broken far below the middle, very near its basal fourth. The head is transverse, opaque, coriaceous or finely, closely punctate. Metathorax finely rugulose, with two delicate, median carinæ at base above; the pleural carinæ are distinct. Abdomen elongate, sessile, twice longer than the thorax, depressed, finely, evenly shagreened, the sculpture smoother or less evident, on segment five and beyond, usually with a glabrous space at apex of segments. Claws simple, not pectinate.

Type.—Cat. No. 5614, U. S. Nat. Museum. From Yakutat, June 21. One specimen.

Genus *Lissonota* Gravenhorst.

LISSONOTA ALASKENSIS sp. nov.

Female.—Length 7.5 mm. Black, coriaceous; apex of second dorsal abdominal segment, base of third, and the legs, except coxæ, basal joint of trochanters and the hind tarsi, red. Wings hyaline, the stigma and veins brown, the areolet oblique, petiolate, the disco-cubital nervure curved but showing a faint trace of a stump of a vein at its basal third (so small as to be easily overlooked), the submedian cell a little longer than the median, while the transverse median nervure in the hind wings is not quite straight, very obtusely angularly broken a little below the middle.

Type.—Cat. No. 5614, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission). One specimen.

LISSONOTA RUFICOXIS Schmiedeknecht.

Lissonota sulferifera GRAVENHORST, var. *ruficoxis* SCHMIEDEKNECHT, Zool. Jahrb. Jena, XIII, p. 360, 1900.

Kukak Bay, July 4. One female specimen.

The single specimen taken, so far as the description goes, agrees perfectly, in size and color, with the brief description of this European species as given by Dr. Schmiedeknecht, who defined it as a variety of the European species *Lissonotus sulferifera* Gravenhorst. I have no European specimens of this variety for comparison, but if our specimen is identical with Schmiedeknecht's then I cannot agree with him in considering it a variety of *L. sulferifera*, since in comparison with European specimens of this species, besides a difference in the color of the legs, I find a difference in venation, and it should be considered a distinct species. The venation of the front wings is exactly as in *L. rimator* Thomson, and it is much closer related to that species than to *L. sulferifera*.

Genus *Pimplopterus* Ashmead.

PIMPLOPTERUS YAKUTATENSIS sp. nov.

Female.—Length 6 mm. Black opaque, coriaceous; clypeus yellowish and distinctly separated from the face; legs, except the coxæ, basal joint of trochanters and hind tibiae and tarsi red. Wings hyaline, the stigma and veins brown, the areolet oblique but sessile, receiving the second recurrent nervure beyond the middle, the submedian cell

distinctly longer than the median, the disco-cubital nervure strongly curved, the transverse median nervure in the hind wings broken far below the middle, at or near the basal fourth. The metathorax has the apical transverse carina alone distinct, the pleural carinae being absent, while the spiracles are small, short oval. The abdomen is sessile, distinctly finely shagreened, the first segment longer than the second, without dorsal carinae but with a median depression at the extreme base; the second and third segments are about equal in length but the third is slightly the wider; the fourth and fifth segments are very unequal in length, much shorter than the third, the fifth being only about one third the length of the second; the sixth segment is scarcely visible; ovipositor longer than the abdomen.

Type.—Cat. No. 5616, U. S. Nat. Museum. From Yakutat, June 21. One specimen.

PIMPLOPTERUS ALASKENSIS sp. nov.

(Pl. x, fig. 6.)

Female.—Length 8 mm. Head and thorax, except the clypeus and the mesonotum, and the abdomen, except the apex of the first segment and segments 2 to 4, black; clypeus, mesonotum, apex of first abdominal segment and dorsal segments 2 to 4, rufous; legs, except the hind trochanters, hind tibiae and hind tarsi, ferruginous. Wings subhyaline with the venation as in *P. yakutatensis*. Ovipositor longer than the whole body.

Type.—Cat. No. 5717, U. S. Nat. Museum. From Kodiak, July 20. One specimen.

Genus *Harrimaniella* Ashmead.

Harrimaniella ASHMEAD, Proc. U. S. Nat. Mus., XXIII, p. 52, 1900.

Named in honor of Mr. Edward Henry Harriman, of New York, originator of the Harriman Expedition, and based on the species characterized below.

HARRIMANIELLA KUKAKENSIS sp. nov.

(Pl. x, fig. 2.)

Male.—Length 6.5 mm. Black, closely punctate; a dot at summit of each eye, the face except a median black stripe, the clypeus, cheeks, mandibles, except teeth, palpi, a broad line along the lateral margins of the mesonotum, tegulae, a dot in front and beneath them, a dot above the insertion of the hind coxae, the front and middle coxae and trochanters yellow or yellowish-white; rest of legs, except the hind

tibiæ and tarsi, pale reddish, the hind tibiæ and tarsi black. Wings hyaline, the stigma and veins brown, the areolet oblique, petiolate, receiving the second recurrent nervure beyond the middle, the latter being slightly angulated above the middle the submedian cell distinctly longer than the median, the disco-cubital nervure strongly curved, while the transverse median nervure in the hind wings is broken below the middle at about its basal third. The metathorax has two delicate parallel carinæ down its center which unite with the transverse apical carina, the pleural carinæ absent, the spiracles small, rounded. The abdomen is normal, finely shagreened, except the apices of the segments which are smooth and glabrous.

Type.—Cat. No. 5618, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

Genus **Echthrodoca** Schmiedeknecht.

ECHTHRODOCA GELIDA (Cresson).

Lampronota gelida CRESSON, Proc. Acad. Nat. Sci. Phila., p. 377, ♂, 1878.
—CRESSON, Syn. Hym. North America, p. 219, 1887.

Type in collection of the American Entomological Society. From Juneau, July 25; Seldovia, July 25. Occurs also in British Columbia.

ECHTHRODOCA CLYPEARIA sp. nov.

Male.—Length 11 mm. Black, with the head and thorax closely punctate, the first segment of abdomen sparsely punctate, except at apex, the second and following segments smooth, but under a strong lens show a fine coriaceous sculpture; clypeus, apex of second dorsal abdominal segment, the third wholly, except two spots, and sometimes a faint spot on the fourth laterally, yellowish; legs except coxæ and first joint of trochanters pale reddish. Wings hyaline, the stigma and veins brownish-yellow, the venation otherwise as in *E. gelida* Cresson.

Type.—Cat. No. 5619, U. S. Nat. Museum. From Seldovia, July 21. One specimen.

Tribe **PIMPLINI**.

Genus **Rhyssa** Holmgren.

RHYSSA ALASKENSIS sp. nov.

Female.—Length 17 mm. Black; front orbits to summit of eyes, a line on upper margin of pronotum, interrupted anteriorly at the middle, a line on the lower margin, or sides, just above front coxæ, a

spot beneath the tegulæ, an angulate line at apical angles of first dorsal abdominal segment, a transverse oblong spot at the apex of segments 2 to 5 and a line below it at the lateral apical angles, and a line at the apex of the sixth segment, white; the legs, except the coxæ, basal joint of hind trochanters and the hind tibiæ and tarsi, which are black, are red; sculpture and venation as in *Rhyssa persuasoria* Linné.

Type.—Cat. No. 5620, U. S. Nat. Museum. From Fox Point, July 28. One specimen.

Comes nearest apparently to *R. albomaculata* Cresson but is quite distinct in color of legs and in shape of the areolet in front wings.

Genus *Pimpla* Fabricius.

PIMPLA YAKUTATENSIS sp. nov.

Male.—Length 6 to 7 mm. Polished black, the face below the antennæ distinctly, closely punctate, the metathorax sparsely punctate without carinæ, the abdomen closely punctate, with dorsal segments 2 to 5 slightly tumid and smoother at their apices. The legs, except the hind tibiæ and tarsi, are red, the hind tibiæ and tarsi black or fuscous, the tibiæ with a yellowish or whitish annulus before the middle, sometimes incomplete or interrupted with black beneath, represented by a whitish spot on outer face. Wings hyaline, the stigma and viens brown, the areolet sessile, subrhomboidal, while the disco-cubital vein has usually only a faint trace of a stump of a vein beyond its middle, rarely distinct.

Type.—Cat. No. 5621, U. S. Nat. Museum. From Yakutat, June 21. Five specimens.

Genus *Epiurus* Förster.

In this genus fall two species, which may be separated as follows:
Black.

Hind coxæ and legs red.....2.

All coxæ and the first joint of trochanters black.

Legs, except as noted, red, the hind tibiæ and tarsi black or fuscous, the hind tibiæ with an annulus at base and a spot on outer face near the middle pale yellowish or whitish, the basal joint of their tarsi sometimes white at base.....*E. atrocoxalis*.

2. Legs, except the front and middle coxæ and the first joint of trochanters which are black, red; labial palpi fuscous; maxillary palpi pale yellowish.....*E. bicoloripes*.

EPIURUS ATROCOXALIS sp. nov.

Female.—Length 5.5 mm. Polished black, except the abdomen which is distinctly punctate, the first segment bicarinate for two thirds its length; legs except the coxæ, first joint of trochanters and the hind tibiæ and tarsi, red, the coxæ, hind tibiæ and tarsi black, the hind tibiæ with an annulus at base and a spot outwardly near the middle, or an annulus, white or yellowish-white, the basal joint of hind tarsi at base, and sometimes the second joint at base, whitish, wings hyaline, the arcolet long, oblique, receiving the second recurrent nervure at its apex.

Male.—Length 5 mm. Agrees well with the female except that the hind tibiæ and tarsi are entirely black.

Type.—Cat. No. 5622, U. S. Nat. Museum. From Muir Inlet, June 12; Seldovia, July 21.

EPIURUS BICOLORIPES sp. nov.

Female.—Length 6.5 mm. Resembles *E. atrocoxalis* in sculpture but is readily separated by its larger size and by the color of the legs; the legs, except the front and middle coxæ and first joint of the trochanters are red, the front and middle coxæ and first joint of trochanters are black; labial palpi fuscous; maxillary palpi, tegulæ and epitegulæ yellowish-white, while the metanotum has two parallel dorsal carinæ.

Type.—Cat. No. 5623, U. S. Nat. Museum. From Berg Bay, July 10. One specimen.

Genus *Glypta* Gravenhorst.

GLYPTA KUKAKENSIS sp. nov.

Female.—Length 6.5 mm. Black with the head and thorax distinctly closely punctate, the dorsal segments 2 to 4 with oblique furrows; legs, including coxæ, red, the apices of hind tibiæ and their tarsi fuscous. Wings subhyaline, the stigma and veins brownish-yellow, the areolet open behind, the transverse cubitus about as long as the first abscissa of the radius. Metathorax above bicarinate, the carinæ divergent posteriorly.

Type.—Cat. No. 5624, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

GLYPTA POPOFENSIS sp. nov.

Female.—Length 9 mm. Agrees very closely with *G. kukakensis* in sculpture and wing characteristics but differs in having the hind

tibiæ and tarsi fuscous, the tibiæ having a long whitish stripe posteriorly, or on the outer face, the first and second joints of hind tarsi having a whitish annulus at base, while the clypeus and the mandibles are red.

Male.—Length 6 mm. Differs from female in having the clypeus black, the hind tibiæ red, except an annulus toward base and the apices which are black, while their extreme base is whitish.

Type.—Cat. No. 5625, U. S. Nat. Museum. From Popof Island, July 12. Two specimens.

Tribe *XORIDINI*.

Genus *Holcostizus* Förster.

HOLCOSTIZUS YUKONENSIS (Ashmead).

Pimpla yukonensis ASHMEAD, Proc. U. S. Nat. Mus., XII, p. 445, ♀, 1890.

Type.—Cat. No. 2106, U. S. Nat. Museum. From Fort Yukon (L. M. Turner).

Genus *Odontomerus* Gravenhorst.

ODONTOMERUS MELLIPES (Say).

Anomalon mellipes SAY, MacLurian Lyc. Arts & Sci., I, p. 74, ♀, 1828.—LECONTE, Ed. Say, II, p. 378, 1859.

Odontomerus mellipes WALSH, Trans. St. Louis Acad. Sci., III, p. 164, ♀ ♂, 1873.—PROVANCHER, Fn. du Can. Hym., p. 490, 1883.—CRESSON, Syn. Hym. North America, p. 220, 1887.—ASHMEAD, in Smith's Ins. New Jersey, p. 575. 1900.

From Sitka, August.

Widely distributed throughout North America from Florida to Canada, and from the Atlantic to the Pacific.

Genus *Cubocephalus* Ratzeburg.

Three species fall in this genus, as defined by the writer in his Classification of the Ichneumon Flies, although there is some doubt as to its being the *Cubocephalus* of Ratzeburg, since it was identified from description alone and I have not been able to confirm it by a study of typical European specimens.

TABLE OF SPECIES.

Black species.

All coxæ rufous.....2.

All coxæ black.

Legs red, with the hind tibiæ and all tarsi black or fuscous, sometimes with the extreme apices of the joints of the first and middle tarsi testaceous; mandibles, except teeth, red.....*C. atrocoxalis*.

2. Legs rufous with the hind tibiæ and tarsi black, the middle tarsi fuscous, the apices of joints 1 to 4 yellowish; clypeus with the anterior margin testaceous; mandibles rufo-piceous with a large yellowish-white spot at base..... *C. alaskensis*.

Legs rufous, with the hind femoræ 'ward apex and their tibiæ and tarsi black, the apex of the middle tibiæ and tarsi subfuscous; clypeus wholly black; mandibles yellowish-white with black teeth.

C. nigricornis

(= *Echthrus nigricornis* Provancher, part).

CUBOCEPHALUS ATROCOXALIS sp. nov.

Female.—Length 8 to 10 mm.; ovipositor about two thirds the length of the abdomen. Black, very finely, closely punctate; mandibles, except teeth, and legs, except coxæ, hind tibiæ and tarsi red; palpi yellowish; tegulæ, epitegulæ and apices of ventral segments 1 to 3 yellowish-white. Wings subhyaline, the stigma and veins black, the areolet oblique, rhomboidal. Claws pectinate. Metathoracic areola partly formed but confluent with the petiolar area.

Type.—Cat. No. 5626, U. S. Nat. Museum. From Alaska (U. S. Coast and Geodetic Survey). Exact locality unknown. Easton, Washington (Albert Kæbele).

CUBOCEPHALUS ALASKENSIS sp. nov.

Female.—Length 7–8 mm. Agrees well with *C. atrocoxalis*, except that all the coxæ are red, the hind tibiæ and tarsi black, the middle tarsi more or less fuscous with the tips of the joints yellowish, the anterior margin of the clypeus and scape at apex narrowly, are testaceous; wings clear hyaline; while the four apical segments of the abdomen are almost smooth, shining.

Type.—Cat. No. 5627, U. S. Nat. Museum. Alaska.

CUBOCEPHALUS NIGRICORNIS sp. nov.

Echthrus nigricornis PROVANCHER (*partim*), Faun. ent. du Can., II, p. 803, ♀ (*nec* ♂, p. 486), 1883.—CRESSON, Syn. Hym. North America, p. 221 (part), 1887.

Cryptus or *Phygadeuon* species DAVIS, Proc. Acad. Nat. Sci. Phila., p. 190 (part), 1894.

Female.—Length 7.5 to 8 mm. Agrees in stature and color fairly well with *C. alaskensis*, except that the clypeus is entirely black, not testaceous anteriorly, the apex of the hind femora and their tibiæ and tarsi are wholly black, the abdomen with a very fine alutaceous or coriaceous sculpture, while the areolet in the front wings is usually very irregularly pentagonal, although sometimes subrhomboidal or oblique as in the other species.

Type.—Cat. No. 5752, U. S. Nat. Museum. From Alaska (U. S. Coast and Geodetic Survey); Sherbrook, Canada (Abbe Bégin).

In *Le Naturaliste Canadien*, VII, 1875, p. 264, Abbe Provancher described a male insect under the name *Mesostenus nigricornis* which he afterwards in his *Fauna entomologique du Canada*, 1883, correlated incorrectly with a female under the same name.

The name *nigricornis* Provancher must be retained for the male which belongs to quite a different genus in a different tribe and subfamily; and the female, incorrectly correlated with it, I have here named *Cubocephalus nigricornis*.

Genus *Xylonomus* Gravenhorst.

XYLONOMUS FRIGIDUS Cresson.

Xylonomus frigidus CRESSON, Trans. Am. Ent. Soc., III, p. 168, 1870.—PROVANCHER, Fn. du Can. Hym., p. 489, 1883.—CRESSON, Syn. Hym. North America, p. 220, 1887.

Type in collection of the American Entomological Society. From Fort Yukon (L. M. Turner). Originally described from Hudson Bay Territory, but found throughout Canada and southward into the New England States and New York.

Subfamily *TRYPHONINÆ*.

Tribe *MESOLEPTINI*.

Genus *Spanoctecnus* Förster.

SPANOCTECNUS FLAVOPICTUS sp. nov.

Male.—Length 4.1 mm. Polished black; anterior orbits, face below antennæ, cheeks, mandibles, front and middle coxæ and trochanters, a line on each side of the mesosternum, and apical margins of dorsal abdominal segments 2 to 4, lemon-yellow; hind coxæ black; rest of legs, except the first joint of trochanters *above*, more or less, and the middle and hind femora *above*, more or less; hind tibiæ at apex and their tarsi, which are fuscous, red. Wings hyaline, the stigma and veins light brown, the tegulæ yellowish-white.

Type.—Cat. No. 5628, U. S. Nat. Museum. From Unalaska, September 17 (Fur Seal Commission). One specimen.

Genus *Eclytus* Holmgren.

ECLYTUS YAKUTATENSIS sp. nov.

Male.—Length 5 mm. Polished black; orbits opposite antennæ, the face below, including the cheeks and mandibles, except a tridentate (m) black mark just beneath the insertion of antennæ, and the front

and middle coxæ and trochanters, except a black streak above, yellow; hind legs black or dark fuscous; rest of legs rufo-testaceous.

Antennæ 28-jointed, brown black. Wings hyaline, the stigma and veins light brown, the outer edge of the stigma and the costal vein brown black. Abdomen elongate, smooth and shining, except the petiole which is finely, irregularly rugulose and bicarinate basally.

Type.—Cat. No. 5629, U. S. Nat. Museum. From Yakutat, June 21. Two specimens.

DALLATORREA gen. nov.

This new genus, remarkable in several particulars and especially in its mandibular and metathoracic characters, is named in honor of the learned author of the great work, *Catalogus Hymenopterorum*, Dr. C. W. von Dalla Torre, professor in the Imperial Leopold-Franzeus University, Innsbruck, Austria, who has not only been a prolific and valuable contributor toward a knowledge of European Hymenoptera, but who, in compiling this great catalogue—a labor of 30 years—has endeared himself to all working hymenopterologists and reared for himself a lasting monument.

The true position of this singular genus cannot be definitely settled until the female is discovered. From present knowledge it might just as well be placed in the tribe *Plectiscini*, with which it agrees in some of its cephalic characters, especially with such genera as *Catastennus* and *Symplecis*, as well as with the *Mesoleptini*.

For the present, however, judging alone from the characters of the male, I consider it to belong to this group, and in my generic table of the *Mesoleptini*, *Classification of the Ichneumon Flies*, p. 65, it will fall in next to the genus *Gausocentrus* Förster.

The two may be separated by the following characters:

Metathorax bispined, the mesonotal furrows strongly impressed anteriorly; scutellum black; eyes converging anteriorly; mandibles conically acute, although bidentate, the teeth very unequal, the inner tooth being very minute, almost invisible and less than half the length of the apical or outer tooth.....*Dallatorrea*.

Metathorax normal, unarmed, the mesonotal furrows not strongly impressed; scutellum yellow; eyes parallel, not converging anteriorly; mandibles bidentate, the teeth equal.....*Gausocentrus* Förster.

DALLATORREA ARMATA sp. nov.

(Pl. x, fig. 5.)

Male.—Length 7 mm. Polished black; mandibles rufo-testaceous; palpi and tegulæ pale yellowish; front legs brownish-yellow, the

middle and hind legs, except the hind tarsi which are black or fuscous, reddish-brown; abdomen black with the apices of dorsal segments 2 and 3 narrowly yellowish; antennæ except the ring-joint, entirely black. Wings hyaline, the stigma and veins brown black, the discocubital vein broken by a slight stump of a vein before its middle, the areolet oblique, petiolate, receiving the second recurrent nervure near its apex. Scutellum longitudinally striate. Metathorax bidentate or bispined, the upper hind angles being produced into a long tooth or spine, the areola elongate, about thrice as long as wide. Abdomen twice longer than the head and thorax united, the petiole very long and slender, as long as segments 2 and 3 united, very slightly curved at apex as seen from the side, coriaceous, the spiracles situated at the basal third.

Type.—Cat. No. 5630, U. S. Nat. Museum. From Sitka, June 16. One specimen.

Genus *Gausocentrus* Förster.

Mr. Davis¹ has incorrectly placed in this genus *Mesoleptus strigosus* Cresson. The type of this species, No. 1604 (Belfrage Collection) is in the National Museum and a careful study of it shows that it is a Cryptine and not a Tryphonine, and in reality represents the male of *Mesostenus longicaudus* Cresson, a species which should be placed in the genus *Nematopodius* Gravenhorst, in my tribe *Mesostenini*. *Nematopodius longicaudus* Cresson is found from Texas to Canada and will doubtless be found to occur in Alaska.

Genus *Hypocryptus* Förster.

This genus is here recognized in our fauna for the first time.

TABLE OF SPECIES.

1. Head and thorax mostly black.
 - Abdomen more or less rufous, or with the middle segments rufous4.
 - Abdomen mostly black, none of the segments wholly rufous, although sometimes apically or medially striped or banded with rufous.....2.
2. Abdomen with a rufous stripe extending from base of second dorsal segment clear to the apex, dilated posteriorly and leaving the sides of the segment alone black3.

¹Trans. Amer. Ent. Soc., xxiv, p. 311, 1897.

Abdomen not so marked.

Face below the insertion of antennæ, cheeks, mandibles, palpi, tegulæ, a broad line in front of them on each lateral margin of the mesonotum, hind angles of pronotum, prosternum, mesosternum and the lower half of the mesopleura, the front and middle coxæ and trochanters, the second joint of hind trochanters and tibial spurs, lemon-yellow; rest of legs red; abdomen mostly black, the ventral fold and a spot at extreme apex of segments 3 to 7 yellowish. Male.....*H. kodiakensis*.

Face below the insertion of antennæ, cheeks, mandibles, palpi, tegulæ, a short line beneath a spot in front on each hind angle of pronotum, spot on prosternum, a line between the mesosternum and the mesopleura, dilated anteriorly and enclosing a black spot, the front and middle coxæ and trochanters, and the hind coxæ and trochanters *beneath*, lemon-yellow; rest of legs mostly rufous, the hind coxæ, trochanters and femora *above*, black, the hind tibiæ and tarsi fuscous, the middle tarsi above subfuscous. Male.

H. variegatipes.

3. Face below antennæ, except a black median line and two large black spots just above the clypeus, the clypeus, cheeks, mandibles, except tips, palpi, scape beneath, tegulæ, a broad line in front along the sides of the mesonotum, a line beneath, prosternum posteriorly, a broad line on each side of the mesosternum, the front and middle coxæ and trochanters, and the second joint of hind trochanters, lemon-yellow; rest of legs red. Female.....*H. popofensis*.

4. Abdomen with the apex of first dorsal segment, the second and third entirely and the fourth or most of the fourth, rufous; sometimes with the second and third segments alone rufous.....5.

Abdomen with the apex of the second dorsal segment and the third and fourth wholly rufous, the apex of the fourth sometimes black.

Face beneath antennæ, mandibles, palpi, scape and pedicel *beneath*, tegulæ, the scale in front, the front and middle legs, including coxæ and trochanters, tibial spurs and the hind trochanters and basal half of hind tibiæ lemon-yellow; hind coxæ and femora black, their tibiæ toward apex and their tarsi fuscous. Female.

H. seldovici.

5. Hind coxæ black, the middle coxæ black only basally; face beneath, antennæ, mandibles, palpi, scape and pedicel beneath, scape in front, and the front and middle legs lemon-yellow, the hind legs, except coxæ and the apex of tibiæ, rufous. Male.....*H. seldovici*.

Hind coxæ rufous, the middle and front coxæ yellow; face beneath, antennæ, except a slender black median line extending nearly to the base of the clypeus, mandibles, tegulæ, scape in front and the front and middle trochanters, lemon-yellow, rest of the legs, except the hind coxæ and tarsi which are fuscous, red; palpi white.

H. tibialis.

HYPOCRYPTUS KODIAKENSIS sp. nov.

Male.—Length 8 mm. Black with the face below the antennæ, including the clypeus, cheeks and mandibles, except teeth, the scape beneath, the pro- and mesosternum, the anterior and middle trochanters, tegulæ, a line below, the upper margin of the prothorax in front of the tegulæ, a hook-shaped line on each side of the mesonotum extending from the tegulæ anteriorly to the parapsidal depressions, a spot on the scutellum at apex, and a dot at the origin of the hind wings, lemon-yellow; palpi, tibial spurs and the hind trochanters, yellowish-white; rest of legs rufous. Wings hyaline, the stigma and veins dark brown. The head is opaque, finely coriaceous, the mesonotum is polished, impunctate; while the metathorax has two median carinæ, divergent posteriorly, the space between posteriorly being rugulose. The abdomen is clongate, subcylindrical, *above*, except a slight yellow stripe at the extreme apices of segments 3 to 7, black, *beneath* yellowish, with oblong black spots on segments 2 to 4. Antennæ above black, the flagellum beneath brownish.

Type.—Cat. No. 5631, U. S. Nat. Museum. From Kodiak, July 2. One specimen.

HYPOCRYPTUS VARIEGATIPES sp. nov.

Male.—Length 8 mm. Black, with the face below the antennæ, the cheeks, clypeus, mandibles, except teeth, scape and pedicel *beneath*, a line beneath tegulæ and a spot before, a spot on prosternum in front of the insertion of the coxæ, a broad line on each side of the mesosternum dilated anteriorly and enclosing a black spot, and the front and middle coxæ and trochanters lemon-yellow or yellowish-white; rest of front and middle legs, and the hind femora and tibiæ *beneath*, red; hind legs above black, the coxæ and trochanters *beneath* yellowish; flagellum beneath ferruginous; abdomen above black, with the extreme apices of segments 2 to 7, a median spot at base and apex of segments 2 and 3, that on the third being more or less conjoined to a median line, and a small median spot at apices of the following segments testaceous. Wings hyaline, the stigma, except a white spot at its base, and the veins brown.

Type.—Cat. No. 5632, U. S. Nat. Museum. From St. Paul Island, August 25 (Fur Seal Commission). One specimen.

HYPOCRYPTUS POPOFENSIS sp. nov.

Male.—Length 6.5 mm. Black; face, except a short median black spot just beneath the insertion of the antennæ and two large quadrate

spots just below it above the clypeus, the cheeks, mandibles, except teeth, and the scape and pedicel beneath, lemon-yellow; basal half of flagellum *beneath* and the apical half or more entirely ferruginous; tegulæ, a line beneath and a spot in front, a broad line on each side of the mesonotum, a large spot on prosternum in front of each coxa, a broad band on each side of the mesosternum, the front and middle coxæ and trochanters, and the tibial spurs, yellowish-white; rest of legs, except the hind tarsi red, the hind tarsi subfuscous. Wings hyaline, the stigma and subcostal vein yellowish, the internal veins brown.

Type.—Cat. No. 5633, U. S. Nat. Museum. From Popof Island, July 12. One specimen.

HYPOCRYPTUS SELDOVLÆ sp. nov.

Female.—Length 10 mm. Black, the abdomen with a median spot at apex of dorsal segment 2 and segments 3 and 4 entirely rufous; face below antennæ, scape and pedicel *beneath*, and the front and middle legs, except basally, lemon-yellow; hind coxæ and femora black, their tibiæ *above* and the tarsi fuscous or black, the tibiæ *beneath* reddish; flagellum, except a few of the basal joints *above* ferruginous; palpi, tegulæ, a small spot in front, the front and middle coxæ and trochanters and the hind trochanters yellowish-white. Wings hyaline, the subcostal vein, the parastigma and poststigmatal vein, yellowish, the stigma and the internal veins dark brown.

Male.—Length 9 mm. Differs from female in having the dorsal abdominal segments 2, 3 and 4 red, the base of the middle coxæ black, while the hind legs, except the hind coxæ which are black, and the trochanters *above* which are fuscous, are red.

Type.—Cat. No. 5634, U. S. Nat. Museum. From Seldovia, July 20; Kukak Bay, July 4.

HYPOCRYPTUS TIBIALIS sp. nov.

Male.—Length 8.5 mm. Black, the abdomen with dorsal segments 3 and 4 usually blotched with red, rarely wholly red, segment 5 with an obscure reddish spot at basal middle, while the extreme apices of segments 6 and 7 are yellowish; face below antennæ, except a median black line, the clypeus, cheeks, mandibles, except teeth, scape beneath, and a small spot in front of tegulæ, lemon-yellow; flagellum beneath ferruginous; palpi, tegulæ, front and middle coxæ and trochanters yellowish-white; rest of legs, except the hind tibiæ and tarsi, which are fuscous, red. Wings hyaline, the stigma and subcostal vein yellowish, the internal veins dark brown.

Type.—Cat. No. 5635, U. S. Nat. Museum. From Popof Island, July 4. One specimen.

Genus **Mesoleptus** Gravenhorst.

MESOLEPTUS UNALASKÆ sp. nov.

Female.—Length 7 mm. Black; face below antennæ, except a median black line, connected with a triangular black spot just above the clypeus, the cheeks, clypeus, mandibles, except teeth and a spot at base, the palpi, scape and pedicel beneath, tegulæ, epitegulæ, sutures of trochanters and the second joint of same, tibial spurs, venter and the extreme apices of dorsal abdominal segments 2 and 3 (nearly invisible unless viewed from behind) yellowish-white; flagellum beneath ferruginous; all coxæ and first joint of trochanters, at least above, black; rest of legs red. Wings hyaline, the stigma and subcostal vein yellowish, the internal veins brown.

Type.—Cat. No. 5636, U. S. Nat. Museum. From Unalaska, August 24 (Fur Seal Commission).

Tribe **CTENISCINI**.

Genus **Microplectron** Förster.

MICROPLECTRON ALASKENSIS sp. nov.

Male.—Length 3.6 mm. Black, the face, except a broad median line extending to the clypeus, clypeus, mandibles, scape and pedicel beneath, and apical median blotches on dorsal abdominal segments 2, 3 and 4, as well as the *extreme* apices of the following segments, lemon-yellow; palpi, tegulæ, apices of front and middle coxæ and *beneath*, their trochanters and the hind trochanters yellowish-white; front and middle coxæ basally and the hind coxæ black; rest of legs mostly rufous, the hind femora, tibiæ and tarsi brownish or subfuscous. Wings hyaline, the stigma and veins brown, the poststigmal vein and subcostal veins, as well as the parastigma and the veins in the hind wings, pale yellowish.

Type.—Cat. No. 5637, U. S. Nat. Museum. From Popof Island, July 9. One specimen.

Genus **Cteniscus** Haliday.

TABLE OF SPECIES.

- | | |
|--|----|
| 1. Thorax and the head, at least above, black..... | 2. |
| Thorax not black | 5. |

2. Hind coxæ not black.....4.
 Hind coxæ always black, the middle usually black only at base.
 Face below the insertion of the antennæ yellow but *without* a median black line.....3.
 Face below the insertion of the antennæ yellow but *with* a median black line that extends to base of clypeus.
 Female: abdomen black but with the three or four apical segments, and segments 2 and 3 at apex, mostly rufous.....*C. clypeatus*.
 Male: abdomen mostly black, with usually the apical margins of segments 2 and 3 and 6 and 7, rufous; there is also usually a median rufous spot on 3 and 4.....*C. clypeatus*.
 3. Front and middle coxæ at apex, their trochanters and the hind trochanters yellowish-white; rest of coxæ, and the hind femora black, the hind tibiæ and tarsi subfuscous, the front and middle legs fulvous; abdomen black with the apex of the second segment, a broad median stripe on the third at apex, and the sutures of the following segments rufous.....*C. nigrofemoralis*.
 4. None in this section from Alaska.
 5. None in this section from Alaska.

CTENISCUS CLYPEATUS Cresson.

Cteniscus clypeatus CRESSON, Trans. Am. Ent. Soc., II, p. 113, ♀, 1869.
Mesoleptus concolor PROVANCHER, Nat. Can., VII, p. 139, 1875.—PROVANCHER, Fn. du. Can. Hym., p. 403, 1883.—CRESSON, Syn. Hym. North America, p. 212, 1887.—DAVIS, Trans. Am. Ent. Soc., XXIV, p. 228, 1897.

Type in collection of the American Entomological Society. From St. Paul Island, August 15 to 25 (Fur Seal Commission). Many specimens. Occurs in the White Mountains of N. H., the mountains of Colorado, Hudson Bay Territory and in Oregon and Washington.

CTENISCUS NIGROFEMORALIS sp. nov.

Male.—Length 7.8 mm. Black; face from some distance from below the antennæ, not immediately from their insertion, the clypeus, except a black sutural line, cheeks, the mandibles except the teeth, and scape and pedicel *beneath*, lemon-yellow; palpi, tegulæ, a small spot in front, epitegulæ, apices of front and middle coxæ, their trochanters, and the hind trochanters yellowish-white; rest of coxæ and hind femora black, the rest of the legs mostly reddish, the hind tibiæ and tarsi usually more or less obscured or subfuscous. Wings hyaline, the stigma, except at apex and base, and the internal veins brownish. Abdomen black with the apices of dorsal segments 2 and 3 and a median stripe on the second, rufo-testaceous.

Type.—Cat. No. 5638, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

Genus *Diaborus* Förster.

DIABORUS SEXMACULATUS sp. nov.

Male.—Length 10 mm. Black; face, except a median line connected with a black band across base of clypeus, the remainder of clypeus, spot on cheeks, epitegulae, a line on upper margin of prothorax interrupted anteriorly, and spots, or bands at apices of dorsal abdominal segments 2 to 7, lemon-yellow; mandibles, except teeth, the palpi, tegulae and front coxae and trochanters, yellowish-white; rest of legs except as noted, reddish-yellow, the hind coxae and first joint of trochanters above black, the apex of the tibiae and tarsi fuscous. Wings hyaline, the stigma and subcostal vein yellowish, the other veins dark brown.

Type.—Cat. No. 5639, U. S. Nat. Museum. From Popof Island, July 8. One specimen.

DIABORUS CITRIFRONS sp. nov.

Male.—Length 6 mm. Black; face below antennae entirely, cheeks, mandibles, scape beneath, a line on upper margin of the prothorax, interrupted anteriorly, a short line beneath the tegulae, scutellum, post-scutellum, and a triangular spot at apices of dorsal abdominal segments 1, 2 and 3, and bands at the apices of the following segments, lemon-yellow; palpi, tegulae, a line on the lower margin of the prothorax, the front and middle coxae and trochanters, the hind coxae above and the second joint of their trochanters, yellowish-white; remainder of legs, except the hind tibiae at apex and their tarsi red; the hind coxae beneath and the first joint of the trochanters are black, the hind tibiae at apex and their tarsi are fuscous. Wings hyaline; the stigma, except at base and the subcostal vein, which are yellowish, and the internal veins, dark brown.

Type.—Cat. No. 5640, U. S. Nat. Museum. From Popof Island, July 11. One specimen.

Tribe CTENOPELMINI.

Genus *Erromenus* Holmgren.

ERROMENUS ANNULIPES sp. nov.

Female.—Length 6.8 mm. Black; clypeus and legs, except as hereafter noted, red; mandibles, except teeth, epitegulae and the subcostal vein, front and middle trochanters, except the first joint of the middle above, the tibial spurs, and the extreme apices of dorsal ab-

dominal segments 2 and 3 yellow or yellowish-white; palpi and an annulus of the hind tibiæ before the middle, white; coxæ, hind trochanters, apices of hind femora, their tibiæ, except the white annulus, and their tarsi black. Wings hyaline, the stigma and veins brown, the disco-cubital nervure broken by a distinct stump of a vein, the areolet complete.

Type.—Cat. No. 5641, U. S. Nat. Museum. From Popof Island, July 11. Two specimens.

Genus **Monoblastus** Hartig.

MONOBLASTUS NIGER sp. nov.

Male.—Length 7 mm. Black; mandibles with a rufous spot near the middle; palpi, epitegulæ and the subcostal vein, yellowish; apices of all femora and all tibiæ and tarsi, except the last three joints of the middle and hind tarsi, testaceous, the terminal joints mentioned being more or less fuscous, especially above. Wings hyaline, the stigma, except at base, and the veins dark brown; the disco-cubital vein is strongly curved, but has a short stump of a vein at its basal third. The head in front is closely confluent punctate, behind and on vertex it is smooth and shining, although sparsely punctate. The thorax above is sparsely but distinctly punctate, the metathorax rugulose, opaque, except the surface within the basal lateral areas which is smooth and shining.

Type.—Cat. No. 5642, U. S. Nat. Museum. From Popof Island, July 9. One specimen.

Genus **Polyblastus** Förster.

POLYBLASTUS GLACIALIS sp. nov.

Female.—Length 8 mm. Black; anterior half of clypeus, dorsal abdominal segments 2, 3 and 4, and the legs, except as hereafter noted, rufous; all coxæ and trochanters, the hind femora and their tibiæ at apex black, the hind tibiæ basally and their tarsi more or less yellowish, the tarsal joints at apex being fuscous; tegulæ dark piceous; the epitegulæ, subcostal vein, base of stigma and palpi, yellowish-white, the rest of the stigma and the internal veins brown. The face is finely, closely punctate, the basal half of the clypeus shining, with some coarse punctures; the thorax above is shining, although sparsely minutely punctate; the metathorax is rugulose, the carinæ strong, but with the basal middle and middle lateral areas confluent; while the first segment of the abdomen is rugulose with two dorsal carinæ that extend four-fifths its length.

Type.—Cat. No. 5643, U. S. Nat. Museum. From St. Paul Island, August 17 (Fur Seal Commission). One specimen.

Genus *Scorpiorus* Förster.

SCORPIORUS ALASKENSIS sp. nov.

Female.—Length 5.5 mm. Black; a dot on cheeks, a triangular spot on anterior angles of face just above the clypeus, the clypeus, mandibles, scape beneath, the venter and the extreme apex of the sixth dorsal abdominal segment yellow; legs, except more or less of the coxæ above, a broad band at apex of the second dorsal abdominal segment, the third segment entirely, and the apex of the fourth, rufous; palpi, tegulæ, epitegulæ, subcostal vein, and a spot at the base of the stigma, ivory-white or yellowish-white. Wings hyaline, the stigma except as noted, and the internal veins, brown. Metathorax areolated, as in *Polyblastus glacialis*. Abdomen with the first segment broad, finely rugulose, the dorsal carinæ extending only to its middle.

Type.—Cat. No. 5644, U. S. Nat. Museum. From Popof Island, July 11. One specimen.

SCORPIORUS NIVEICOLA sp. nov.

Female.—Length 3.5 mm. Black; the clypeus, mandibles, palpi, tegulæ, epitegulæ, subcostal vein and the base of the median vein, white; legs and the first and second segments of the abdomen, brownish-yellow or reddish-yellow. Wings hyaline, the stigma and veins brown. Face smooth, shining, at the most sparsely and microscopically punctate medially. Thorax polished, impunctate, the scutellum elevated, with a deep transverse furrow across the base, the metathorax finely rugulose, carinate, the basal lateral and middle areas confluent. Abdomen smooth, shining, the first segment at the most alutaceous, the dorsal carinæ not extending beyond its middle.

Male.—Differs from female in having two broad white spots on face anteriorly, one on each side, that extend on to the cheeks; the scape and pedicel beneath are white; the apex of the hind tibiæ and their tarsi are fuscous; the abdomen has the second and third dorsal segments and the apex of the fourth, brownish-yellow, while the first segment is the longest with the dorsal carinæ extending nearly to its apex.

Type.—Cat. No. 5645, U. S. Nat. Museum. From Muir Inlet, June 12; Popof Island, July 9.

Tribe *TRYPHONINI*.Genus *Trematopygus* Holmgren.*TREMATOPYGUS KUKAKENSIS* sp. nov.

Female.—Length 5 mm. Black; mandibles, except the teeth and a spot at base, the legs, except the coxæ and the hind tarsi, and dorsal abdominal 3 at apical half and 4 entirely, rufous; palpi, tegulæ, epitegulæ, subcostal vein, and base of stigma, yellowish-white. Head and thorax coriaceous, the metathorax rugulose, completely areolated. Abdomen with the petiole and second dorsal segment coriaceous, the following segments finely punctate, the dorsal carinæ of the petiole indistinct, close and nearly parallel.

Type.—Cat. No. 5647, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

Genus *Cosmoconus* Förster.*COSMOCONUS CANADENSIS* (Provancher).

Tryphon canadensis PROVANCHER, Nat. Can., VII, p. 117, 1875.

Mesoleius canadensis PROVANCHER, Fn. du Can. Hym., p. 417, 1883.—CRESSON, Syn. Hym. North America, p. 210, 1887.

Cosmoconus canadensis DAVIS, Trans. Am. Ent. Soc., XXIV, p. 280, 1897.—ASHMEAD, Smith's Ins. of New Jersey, p. 578, 1900.

Type.—In Parliament Building, Quebec, Canada. From Juneau, July 25. Two male specimens.

Genus *Tryphon* Gravenhorst.*TRYPHON ALASKENSIS* sp. nov.

Female.—Length 6.8 mm. Black; anterior half of clypeus, mandibles, legs, except coxæ, trochanters, hind femora and apex of their tibiæ and their tarsal joints at tips, and dorsal abdominal segments 3, 4 and 5, rufous; coxæ, trochanters, hind femora, their tibiæ at apex and the apices of tarsal joints, fuscous; palpi, epitegulæ, subcostal vein and a spot at base of stigma, yellowish-white. Wings hyaline, the stigma and veins, except as noted, brown.

Type.—Cat. No. 5648, U. S. Nat. Museum. From St. Paul Island, August 25 (Fur Seal Commission).

Genus *Trophoctonus* Förster.*TROPHOCTONUS INSULARIS* sp. nov.

Male.—Length 7.5 mm. Dark rufous, with the sutures of the thorax, prosternum, mesosternum, metathorax and the extreme base of

first abdominal segment with its dorsal carinæ, black; face with a spot at each anterior angle, clypeus, a spot at base of mandibles, epitegulæ, costæ, and a spot at base of stigma, ivory, or yellowish-white; legs ferruginous. Wings subfuscous, the stigma and veins, except as noted, brown. Face finely punctate, the vertex and the thorax smoother, shining but sparsely, minutely punctate; the prothorax in the lateral depressions is distinctly wrinkled; the metathorax is short but strongly and completely areolated; while the first and second dorsal segments of the abdomen are finely rugulose, the first with two strong dorsal carinæ that become obsolete at the apical third of the segment.

Type.—Cat. No. 5648, U. S. Nat. Museum. From Popof Island, July 9. One specimen.

Genus *Sychnoportus* Förster.

SYCHNOPORTUS LONGITARSIS sp. nov.

Male.—Length 4 mm. Black; face below antennæ, except a black line extending off oblique from the basal sutures of the clypeus on to the cheeks, the clypeus, the mandibles and the front and middle coxæ and trochanters lemon-yellow; the legs, except the middle coxæ above, the hind coxæ anteriorly, first joint of their trochanters, tips of their tibiæ and tarsi, which are black or fuscous, and the abdomen, except the basal two thirds of the first segment and segments 5, 6 and 7 which are black, are rufous. Wings hyaline, the stigma and veins brown.

Type.—Cat. No. 5649, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

Genus *Tlemon* Förster.

TLEMON DELICATUS sp. nov.

Male.—Length 5 mm. Black; clypeus, mandibles, hypotegulæ and the epitegulæ lemon-yellow; palpi, tegulæ and the front and middle coxæ and trochanters, ivory or yellowish-white; hind coxæ black, first joint of hind trochanters above, apex of their tibiæ and their tarsi fuscous, the remainder of the legs reddish-yellow or brownish-yellow. Wings hyaline, the stigma and veins brown. Face feebly coriaceous, the clypeus highly polished, impunctate; thorax above and a spot on the middle of the mesopleura smooth, shining, impunctate while the metathorax is rugulose, not short, and incompletely areolated.

Type.—Cat. No. 5650, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

Genus **Polyterus** Förster.**POLYTERUS SEXCARINATUS** sp. nov.

Female.—Length 8.5 mm. Black; clypeus and mandibles dark rufous; palpi yellowish, with the two basal joints brownish or fuscous; legs, except the hind tibiæ and tarsi, including tibial spurs ferruginous, hind tibiæ, their spurs and tarsi black. Head coriaceous opaque; thorax above shining, although microscopically punctate, the metathorax wrinkled but shining, and with six longitudinal carinæ, the two middle rather close at their origin but diverging posteriorly and uniting with the transverse apical carina, the space between being transversely rugulose and twice as wide at apex as at base. Wings hyaline, or only faintly tinged, the stigma and veins brown.

Type.—Cat. No. 5651, U. S. Nat. Museum. From Alaska (U. S. Coast and Geodetic Survey). Two specimens.

Genus **Hyposyntactus** gen. nov.

In a table of genera this new species will fall next to *Syntactus* Förster. The two may be separated as follows:

Clypeus with a transverse furrow at apex.

Metanotum *without* median carinæ; hind legs long, their tarsi thickened, the longer spur of the tibiæ not or rarely half the length of the basal tarsal joint; disco-cubital nervure not broken by a stump of a vein.....*Syntactus*.

Metanotum *with* two median carinæ forming an areola, which, however, is open at base; hind legs normal, the longer tibial spur of hind legs fully half the length of the basal tarsal joint; disco-cubital nervure angularly broken by a stump of a vein.....*Hyposyntactus*.

HYPOSYNTACTUS FLAVIFRONS sp. nov.

(Pl. x, fig. 4.)

Male.—Length 10 mm. Black; face below antennæ, mandibles, scape beneath, a line on collar above, a triangular spot on each side of the mesonotum anteriorly at the base of the parapsidal furrows, the tegulæ, hypo- and epitegulæ, a line beneath, a dot on each side of the prosternum in front of the front coxæ, a spot on mesoternum, the front and middle legs, the hind trochanters, basal two thirds of hind tibiæ and their tarsi except last joint, and dorsal abdominal segments 2, 3 and 4, except narrowly at apex, lemon-yellow. Wings hyaline, the stigma within yellowish, outwardly as well as the internal veins, brown, the disco-cubital nervure angularly broken by a stump of a vein before the middle.

Type.—Cat. No. 5652, U. S. Nat. Museum. From Juneau, July 25. One specimen.

In color and general appearance this species very closely resembles *Cosmoconus canadensis* Provancher, and one must give the closest attention to its structural characters or it might be easily confounded with it.

Genus *Calliphrurus* Förster.

Prior to the Harriman Expedition only a single species belonging to this genus was known in North America.

In the Alaskan material ten additional species have been discovered, which may be tabulated as follows:

TABLE OF SPECIES.

1. Head and thorax black.
 Abdomen not entirely black; dorsal segments more or less rufous. 8.
 Abdomen black or at most with only the extreme apex of one or more of the segments whitish or testaceous.....2.
2. All coxæ black.....3.
 Not all the coxæ black.....5.
3. Smaller species, less than 6 mm. or no longer.....4.
 Larger species, more than 6 mm. long.
 Legs rufous with the front and middle trochanters, the second joint of hind trochanter, tibial spurs, palpi, tegulæ, and ventral fold yellowish-white; coxæ, hind femora, base and apex of their tibiæ and tarsi black.
 Abdomen above black with the apices of the second and third segments nearly yellowish; clypeus and mandibles yellow; no spot in front of each lateral mesothoracic lobe. Female.....*C. clypeatus*.
 Abdomen with dorsal segments 2 to 6 or 7, narrowly at apex flavo-testaceous, the third and fourth usually also with a large median spot toward apex; clypeus, mandibles and a spot on scape beneath yellow; legs rufous. Male.....*C. clypeatus*.
 Legs rufous, with the trochanters, except first joint *above*, palpi, tegulæ and ventral fold yellowish-white; tibial spurs testaceous; coxæ, basal joint of trochanters above, tips of hind tibiæ and tarsi black or fuscous.
 Clypeus, mandibles and a triangular mark in front of each lateral mesothoracic lobe that extends slightly on to the angles of the middle lobe, yellow. Female.....*C. alaskensis*.
 Clypeus, mandibles and tegulæ yellow or yellowish; mesonotum immaculate; flagellum, except two or three basal joints, ferruginous. Female.....*C. affinis*.

4. All coxæ black.

Legs rufous, the coxæ, first joint of trochanters and hind tarsi (sometimes) black; clypeus and mandibles, except teeth, tegulæ, and the extreme apices of dorsal abdominal segments 3 to 7, yellowish-white; flagellum ferruginous. Female.....*C. minor*.

Legs brownish-yellow, with the middle and hind femora more or less dusky or blackish; clypeus and mandibles yellowish; flagellum brown-black. Male.....*C. minor*.

5. Hind coxæ alone black.....6.

All coxæ rufous or pale, never black7.

6. Face below the antennæ, but not along the orbits and on the cheeks, the clypeus, mandibles, palpi, tegulæ, front and middle coxæ and trochanters, second joint of hind trochanters and tibial spurs, yellowish-white; flagellum brown-black. Female.....*C. popofensis*.

7. Legs rufous, with the hind tibiæ and tarsi more or less black or fuscous, the hind tibiæ with a rufous spot or broad band before the middle; clypeus, mandibles, except teeth, and the hind angles of pronotum, pale yellowish; tegulæ brown. Female.....*C. kukakensis*.

Legs pale ferruginous, with the tips of hind tibiæ and tarsi black or fuscous, the front and middle coxæ and all trochanters yellowish-white; face below antennæ including the clypeus, mandibles, a large spot on each side of mesonotum anteriorly, tegulæ, and a V-shaped mark on each side of the mesosternum yellow. Male.....*C. perplexus*.

8. All coxæ pale11.

Hind coxæ black.....9.

9. Hind coxæ black.

Dorsal abdominal segments 2 to 7 mostly rufous or rufous in part.....10.

Dorsal abdominal segments mostly black, with 2 to 7 narrowly flavo-testaceous at apex.

Face entirely, a large spot on each side of the mesonotum anteriorly and a large triangular mark on each side just above the mesosternum lemon-yellow. Male.....*C. alaskensis*.

10. Clypeus, a lunate mark above and connected with it, mandibles, except teeth, palpi, tegulæ, front and middle coxæ and trochanters, and the tibial spurs, yellow or yellowish-white; remainder of legs except the apex of hind tibiæ and their tarsi, which are black, rufous. Male.

C. glacialis.

Face below antennæ, clypeus, mandibles, scape beneath, a large spot on anterior lateral margins of the mesonotum, a spot on each side of mesosternum anteriorly, and the tegulæ lemon-yellow; palpi, front and middle coxæ, apex of hind coxæ and all trochanters, except the first joint of the hind pair above, and the venter, yellowish-white. Male.....*C. frigidus*.

11. Face below antennæ, clypeus, mandibles, a spot on each side of the mesonotum anteriorly (sometimes A-shaped), the tegulæ, a spot in front and a line below, and front and middle coxæ and trochanters, yellowish-white; apex of hind tibiæ and their tarsi black; remainder of legs rufous; antennæ beneath ferruginous. Male.....*C. confusus*.

CALLIPHRURUS CLYPEATUS sp. nov.

Female.—Length 6.5 mm. Black; clypeus and mandibles lemon-yellow; palpi, tegulæ, hypo- and epitegulæ, front and middle trochanters and second joint of hind trochanters, tibial spurs and the venter ivory or yellowish-white; all coxæ, first joint of hind trochanters, base and tips of their tibiæ and the hind tarsi black; hind femora dark, rufo-piceous, rest of legs reddish. Wings hyaline, the stigma, except a spot at base, and the veins brown.

Male.—Length 7.5 mm. Agrees well with the female, except that the legs are entirely red, except the coxæ and the first joint of the trochanters; the first joint of the front and middle trochanters at apex and the second joint are white, while the dorsal abdominal sutures 4 to 7, as well as a median spot at apex of segments 3 and 4, are testaceous.

Type.—Cat. No. 5653, U. S. Nat. Museum. From Kodiak, July 20; St. Paul Island (Fur Seal Commission).

CALLIPHRURUS ALASKENSIS sp. nov.

Female.—Length 8 mm. Black; clypeus, mandibles, and a triangular spot on each side of the mesonotum anteriorly, lemon-yellow; palpi, tegulæ, apices of coxæ, first joint of trochanters beneath, the second joint entirely, and the venter ivory or yellowish-white; coxæ, first joint of trochanters above, apical third of hind tibiæ and their tarsi black; rest of legs red.

Male.—Differs from the female in having the entire face below the antennæ, a large spot on each side of the mesonotum, the hypo- and epitegulæ, and a band on each side of the mesosternum dilated anteriorly and enclosing a black spot, lemon-yellow; palpi, tegulæ, front and middle coxæ and trochanters and hind trochanters, except first joint at base above, ivory or yellowish-white; abdominal sutures, or along the sutures 2 to 7, and an obscure spot at base and apex of the third and sometimes on the fourth, flavo-testaceous; otherwise it is similar to the female.

Type.—Cat. No. 5654, U. S. Nat. Museum. From Popof Island, July 11.

CALLIPHURUS AFFINIS sp. nov.

Female.—Length 6 mm. Allied to and closely resembling *C. alaskensis*, and agreeing with it in the color of abdomen and legs, but differs as follows: The clypeus, mandibles and tegulæ are yellow, the mesonotum immaculate, without the yellow spot on each side anteriorly, while the flagellum, except two or three of the basal joints, is ferruginous. It is also considerably smaller, the extreme apical margins of dorsal abdominal segments 2 to 7 being whitish and the antennæ are shorter.

Type.—Cat. No. 5655, U. S. Nat. Museum. From St. Paul Island, August 15 (Fur Seal Commission).

CALLIPHURUS MINOR sp. nov.

Female.—Length 4.5 mm. Black; clypeus and mandibles, except teeth, testaceous; palpi and tegulæ white; flagellum ferruginous; legs, except coxæ and first joint of trochanters rufous; venter at the sutures and more or less of the ventral fold pale yellowish, while the dorsal abdominal segments 4 to 7 are narrowly whitish at apex. Wings hyaline, the stigma and veins pale yellowish.

Male.—Agrees well with the female except that the legs are brownish-yellow or reddish-yellow, the middle femora dusky basally, the coxæ, first joint of trochanters and the hind femora black, while the dorsal abdominal segments at apex are black, not narrowly white, except a small triangular spot at the lateral apical angles of the first segment.

Type.—Cat. No. 5656, U. S. Nat. Museum. From St. Paul Island, August 20, 24 (Fur Seal Commission).

CALLIPHURUS POPOFENSIS sp. nov.

Female.—Length 6.5 mm. Black; abdomen with the second dorsal segment narrowly testaceous at apex, the following segments, if viewed from behind, showing a little white at their extreme apices; face immediately beneath the antennæ, but not along the orbits or on the cheeks, the clypeus, mandibles, palpi, tegulæ, a spot in front, front and middle coxæ and trochanters, second joint of hind trochanters, and the tibial spurs, yellow or yellowish-white; flagellum brown black. Wings hyaline, the stigma and veins dark brown.

Type.—Cat. No. 5657, U. S. Nat. Museum. From Popof Island, July 11. One specimen.

CALLIPHURUS KUKAKENSIS sp. nov.

Female.—Length 6.5 mm. Black, with the extreme apex of dorsal abdominal segments 2, 3 and 5 narrowly whitish when viewed from behind; clypeus, mandibles, except teeth, and the hind angles of the pronotum, pale yellowish; legs except the hind tibiæ, tibial spurs and tarsi, which are black, rufous, the hind tibiæ usually with a rufous stripe or band before the middle. Wings hyaline, the stigma, except a pale spot at base, and the veins brown.

Type.—Cat. No. 5658, U. S. Nat. Museum. From Kukak Bay, July 10. One specimen.

CALLIPHURUS PERPLEXUS sp. nov.

Male.—Length 6 mm. Black, with dorsal abdominal segments 2 to 7 more or less testaceous or whitish at their extreme apices; face beneath antennæ, clypeus, cheeks, mandibles, except teeth, scape beneath, a large spot on each side of the mesonotum anteriorly, tegulæ, and a V-shaped mark on each side of the mesosternum, lemon-yellow; legs pale ferruginous, with the hind tibiæ apically and their tarsi black or fuscous, while the front and middle coxæ, all trochanters and venter, pale yellowish or ivory white. Wings hyaline, the stigma and veins brown.

Type.—Cat. No. 5659, U. S. Nat. Museum. From Popof Island, July 10. One specimen.

CALLIPHURUS GLACIALIS sp. nov.

Male.—Length 7 mm. Black, with dorsal abdominal segments 2 to 7 more or less rufous, 5, 6 and 7 very narrowly at apex; clypeus, a lunate mark just above it on face, mandibles, except teeth, and a spot on scape beneath yellow; legs rufous, with the hind coxæ, apex of hind tibiæ and their tarsi, black, the anterior and middle coxæ and trochanters, pale yellowish or yellowish-white.

Type.—Cat. No. 5660, U. S. Nat. Museum. From Juneau, July 25. One specimen.

CALLIPHURUS FRIGIDUS sp. nov.

Male.—Length 8 mm. Black, with dorsal abdominal segment 2 at apex, and the following segments rufo-testaceous; face below antennæ, clypeus, cheeks, mandibles, except teeth, scape beneath, a large triangular spot on each side of the mesonotum, a spot on each side of the mesosternum, and the tegulæ, lemon-yellow; palpi, front and

middle coxæ, apex of hind coxæ and all trochanters, except the first joint of the hind trochanters above at base, and the venter, yellowish-white; remainder of leg rufous. Wings hyaline, the stigma within yellowish, outwardly and the other veins brown.

Type.—Cat. No. 5661, U. S. Nat. Museum. From Popof Island, July 10. One specimen.

CALLIPHRURUS CONFUSUS sp. nov.

Male.—Length 7 mm. Black, with dorsal abdominal segment, 2 at apex, and segments 3, 4 and 5 almost entirely rufous, the fifth blackish laterally; face below antennæ, clypeus, mandibles, scape beneath, a large hook-shaped spot on each side of the mesonotum, tegulæ, a spot in front and a short line beneath, lemon-yellow; palpi, front and middle coxæ and trochanters and second joint of hind trochanters, yellowish-white; remainder of legs, except the apex of hind tibiæ and their tarsi which are black, rufous; ventral fold pale yellowish-white. Wings hyaline, the stigma and veins brown.

Type.—Cat. No. 5662, U. S. Nat. Museum. From Kukak Bay, July 4. Two specimens.

Genus *Gemophaga* Förster.

GEMOPHAGA RUFA sp. nov.

Male.—Length 7.5 mm. Rufous; sutures of the thorax and the pro- and mesosternum black; mandibles yellowish-white. Wings subfuscous, the stigma, except a yellowish spot at base, and the veins brown.

The metathorax is short but strongly and completely areolated, the carinæ sharply elevated, the spiracles large, broadly oval. Abdomen, except the first two segments and base of the third, is smooth and shining, the first two segments shagreened, the first with two strong dorsal carinæ.

Type.—Cat. No. 5663, U. S. Nat. Museum. From Popof Island, July 12. One specimen.

Genus *Mesoleius* Holmgren.

MESOLEIUS STEJNEGERI Ashmead.

Mesoleius stejnegeri ASHMEAD, Fur Seals and Fur Seal Islands, iv, p. 337, ♀, 1899.

Type.—Cat. No. 3651, U. S. Nat. Museum. From Bering Island (Dr. L. Stejneger); Pribilof Islands (Fur Seal Commission).

MESOLEIUS ALEUTIANUS Cresson.

Mesoleius aleutianus CRESSON, Proc. Acad. Nat. Sci. Phila., p. 371, ♂, 1878.
—CRESSON, Syn. Hym. N. Am., p. 209, 1887.

Type in collection of the American Entomological Society. From Aleutian Islands.

I have not recognized this species nor have I seen the type. Mr. Davis says it belongs to the genus *Lampronotus* Haliday, but the description alone shows that such cannot possibly be the case. It may, however, represent a male in some other genus in the tribe *Lissonotini*.

Tribe BASSINI.

Genus *Bassus* Gravenhorst.

BASSUS PULCHRIPES Provancher.

Bassus pulchripes PROVANCHER, Fn. du Can. Hym., p. 428, 1883.—CRESSON, Syn. Hym. N. Am., p. 214, 1887.—DAVIS, Trans. Am. Ent. Soc., XXII, p. 20, ♀ ♂, 1895.

Type in Parliament Building, Quebec, Canada. From Muir Glacier. One female specimen. This species is found in Canada, Colorado and the White Mountains, New Hampshire.

Genus *Promethes* Förster.

PROMETHES UNICINCTUS sp. nov.

Female.—Length 5 mm. Black; a median spot on the ridge just below the insertion of the antennæ, the mandibles, hind angles of pronotum, a line beneath tegulæ, and a band at base of third abdominal segment and apex laterally, lemon-yellow; palpi, tegulæ, apices of front and middle coxæ and trochanters, and the second joint of hind trochanters yellowish-white; coxæ, except as noted, black; rest of legs, except the base of femora beneath, rufous. Wings hyaline, the stigma and costal vein yellowish, the subcostal and internal veins brown. Abdomen strongly compressed at apex, the basal segment rugulose, the second striate, the following smooth and polished.

Type.—Cat. No. 5664, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

Genus *Bioblapsis* Förster.

BIOBLAPSIS TRICINCTA sp. nov.

Male.—Length 5.5 mm. Black; anterior orbits to summit of eyes, a rounded spot on middle of face, clypeus, mandibles, and three bands

on the abdomen, lemon-yellow; palpi, scape, pedicel and first joint of flagellum *beneath*, tegulæ, a spot in front, epitegulæ, apices of front and middle coxæ and trochanters, second joint of hind trochanters, and more or less of the front femora and tarsi *beneath*, yellowish-white; rest of coxæ black, remainder of legs mostly rufous, the femora with a blackish spot or stripe toward base beneath, the femora and tibiae *outwardly* fuscous. Wings hyaline, the stigma and veins brownish.

Type.—Cat. No. 5665, U. S. Nat. Museum. From Berg Bay, June 10. One specimen.

Zootrepes Förster.

ZOOTREPES INSULARIS sp. nov.

Male.—Length 6 mm. Black; face below antennæ, clypeus, cheeks, mandibles, a U-shaped mark on mesonotum connected with a band on lateral margins, a dot on pronotum above, a spot in front of tegulæ, the epitegulæ, a spot beneath tegulæ, prosternum, mesosternum, except a large black spot posteriorly, the apical half of hind coxæ, the venter narrowly along the lateral margins, extreme apex of dorsal abdominal segment 2, most of 3, except a lateral black spot, and a median line on dorsal segment 4, lemon-yellow; palpi, tegulæ, front and middle coxæ and trochanters and hind trochanters yellowish-white; basal half of hind coxæ black, the remainder of the legs, except the hind pair, which are dusky behind, rufous; flagellum ferruginous, dusky above.

Type.—Cat. No. 5666, U. S. Nat. Museum. From Popof Island, July 8. One specimen.

Genus Phthorina Förster.

PHTHORINA BOREALIS sp. nov.

Male.—Length 4 mm. Polished black, the metathorax incompletely areolated; mandibles and legs from the apex of the femora and the apices of ventral abdominal segments, rufo-testaceous; palpi and epitegulæ yellowish-white, tegulæ black. Wings hyaline, the stigma, except a yellowish spot at base, and the veins dark brown. Abdomen, except the first segment, smooth and polished, the first segment feebly wrinkled and with two dorsal carinæ on the basal half.

Type.—Cat. No. 5667, U. S. Nat. Museum. From Popof Island, July 9. One specimen.

Genus **Enizemum** Förster.**ENIZEMUM TIBIALE** (Cresson).

Bassus tibialis CRESSON, Trans. Am. Ent. Soc., II, p. 110, ♀, 1868.—CRESSON, Syn. Hym. North Am., p. 214, 1887.

Enizemum tibiale DAVIS, Trans. Am. Ent. Soc., XXII, p. 27, ♀♂, 1895.

Type in collection of the American Entomological Society. From St. Paul Island (Fur Seal Commission). Occurs also in Canada, Montana, Colorado, Kansas and Illinois.

Genus **Homotropus** Förster.**HOMOTROPUS ALASKENSIS** sp. nov.

Female.—Length 5.5 mm. Black; a spot just above clypeus, the clypeus, mandibles, scape and pedicel beneath, a band on each side of the mesonotum, a spot in front of tegulae and a line beneath, most of the coxae and trochanters, the venter, and the second and third dorsal sutures of abdomen more or less lemon-yellow; basal half of hind coxae and the front and middle coxae basally, black; remainder of legs mostly ferruginous, the front and middle femora and tibiae more or less streaked with yellow, the basal joints of trochanters and all femora at base *beneath* fuscous. Wings hyaline, the stigma, except along the outer margin, yellowish, costae and internal veins brownish. Abdomen, except the first and second segments and the base of the third, smooth and shining; first and second segments rugulose, the first the more coarsely, the third feebly sculptured at base only.

Type.—Cat. No. 5669, U. S. Nat. Museum. From Popof Island, July 10, 14. Five specimens.

Tribe **ORTHOCENTRINI**.Genus **Synoplus** Förster.**SYNOPLUS BREVIPENNIS** sp. nov.

(Pl. XI, fig. 2.)

Female.—Length 2.5 mm. Polished black; mandibles rufous; palpi pale fuscous, the last joint sometimes darker; legs ferruginous, the femora and hind coxae usually, but not always, obfuscated, the trochanters and tibial spurs pale yellowish.

Antennae 21-jointed, usually light brownish with the scape and terminal joints darker or fuscous; the first joint of the flagellum is the longest, a little longer than the second, or about $2\frac{1}{2}$ times as long as thick at apex, the following joints to the seventh very imperceptibly

shortening, the joints beyond to the last being quadrate or subquadrate, not longer than wide or a little wider than long, the last joint cone-shaped. Wings much abbreviated and narrowed, not reaching to or much beyond the middle of the abdomen; the tegulæ are pale yellowish or yellowish-white; the stigma and veins are brown, while the marginal cell is usually, but not always, closed. The metathorax is smooth, or at most alutaceous at apex and laterally, with the apical transverse carina distinct although delicate. The abdomen is strongly compressed from the second segment, shining black except the ventral segments at apex which are pale yellowish or whitish; the first segment laterally and at apex is finely, feebly shagreened; the second segment is feebly sculptured at its extreme base and within the basal lateral angles only; while the following are all smooth, impunctured.

Type.—Cat. No. 5670, U. S. Nat. Museum. From St. Paul Island, August (Fur Seal Commission). Fourteen specimens.

SYNOPLUS PLEURALIS sp. nov.

Female.—Length 2 mm. Polished black, with the pleura, metathorax, first segment of abdomen and legs light brown or brownish-yellow, the palpi and tegulæ white.

The antennæ are 20-jointed, the scape fuscous, the flagellum light brown. Wings much abbreviated and narrowed and very similar to those in *S. brevipeennis*, except that the stigma is scarcely developed and the veins are much paler, nearly hyaline or with a yellowish tinge.

Type.—Cat. No. 5671, U. S. Nat. Museum. From St. Paul Island (Fur Seal Commission).

Genus *Hypoleptus* Förster.

HYPOLEPTUS ALASKENSIS sp. nov.

Female.—Length 2 mm. Polished black; mandibles, palpi and annulus at base of the flagellum, sutures of trochanters and the second joint, knees, and the tibiae and tarsi, brownish-yellow, the apex of the hind tibia and their tarsi subfuscous; flagellum brown; apices of ventral abdominal segments whitish. Wings hyaline, the stigma and veins light brown. The antennæ are 18-jointed, the flagellum very gradually thickening towards apex; the first joint of the flagellum is the longest, about $3\frac{1}{2}$ times as long as thick at apex, a little narrowed towards base, the following gradually shortening and thickening, the three before the last being a little wider than long.

Male.—Length 3.4 mm. Differs from the female in having a longer more clavate abdomen, with the first and second dorsal seg-

ments more or less wrinkled or shagreened, while the flagellum is longer, filiform, the joints being cylindrical, subequal in length, about thrice as long as thick.

Type.—Cat. No. 5672, U. S. Nat. Museum. From St. Paul Island, August 22; Belkofski, July 7 (Fur Seal Commission). Fifteen specimens.

HYPOLEPTUS GLACIALIS sp. nov.

Male and Female.—Length 2.5 to 3 mm. Polished black; palpi brownish or fuscous; mandibles, a minute annulus at base of flagellum, sutures of trochanters and the second joint, knees and base of tibiæ yellowish, remainder of legs black or brownish-black; tegulæ and bands on venter yellowish-white. Wings hyaline, the costal vein to the parastigma black or piceous black, the stigma and internal veins brown.

The antennæ are long, 22-jointed (rarely 23-jointed); the flagellum except the annulus at base of first joint is brown-black, the first three or four joints subequal, about thrice as long as thick. The metathorax is about one and a half times as long as wide, feebly alutaceous towards apex, smooth at base above and with a distinct apical transverse carina. The abdomen is elongate, longer than the head and thorax united, polished, except the first and second dorsal segments which are aciculated along the lateral margins; the second has also two oblique furrows or impressed lines.

Type.—Cat. No. 5673, U. S. Nat. Museum. From Muir Inlet, June 12.

Genus *Neuroteles* Ratzeburg.

NEUROTELES DUBIOSUS sp. nov.

Male.—Length 4.2 mm. Polished black; two spots on face superiorly just beneath the antennæ, the labrum, mandibles, sutures of trochanters and the second joint, knees of front and middle legs, base of hind tibiæ, and the front and middle tibiæ and tarsi, pale yellowish; front and middle coxæ *beneath* brownish; palpi pale; tegulæ, epitegulæ, the longitudinal veins in front wings basally, and more or less of the ventral fold yellowish-white.

The antennæ are 28-jointed; the flagellum is brown-black, with the first three or four joints subequal, about $3\frac{1}{2}$ times as long as thick. The metathorax is smooth and shining, except apically and laterally where it is alutaceous or finely, irregularly wrinkled, the pleural carina being faintly indicated posteriorly. The abdomen is elongated and narrowed, twice the length of the thorax, the sides to near the apex

being parallel, the first and second segments shagreened, the first one third longer than the second, the following segments smooth and polished, the third segment a little shorter than the second.

Type.—Cat. No. 5674, U. S. Nat. Museum. From St. Paul Island, August 25 (Fur Seal Commission).

In describing this new species of *Neuroteles*, as defined to suit our American species, the opportunity is taken to state my disagreement with Mr. Davis in his removal of *Neuroteles americana*, *N. ulmicola* and *N. liriodendri* to the genus CAMEROTOPS Förster, as also in making the last two synonymous with *Brephoctonus flavosus* Ashm.; all are distinctly different.

Mr. Davis has overlooked important cephalic and metathoracic differences not readily appreciated by a beginner.

Genus *Deleter* Förster.

DELETER KINCAIDI sp. nov.

Female.—Length 2 mm. Polished black; apex of second dorsal abdominal segment and the third segment entirely testaceous; antennæ, except scape above, and the legs brownish, the trochanters, knees, base of tibiæ and the tarsi paler or yellowish; palpi white; tegulæ and stigma pale yellowish, the costæ and internal veins dark brown.

The antennæ are 22-jointed, slightly thickened toward apex, the five or six joints before the last being quadrate or nearly so, not or scarcely longer than thick, the first three or four basal joints of the flagellum being a little more than twice longer than thick, narrowed toward base.

Abdomen, except the first segment, smooth, impunctate, the first finely aciculate, the second with two oblique depressions basally.

Male.—Differs from female in having the antennæ filiform, the 5 or 6 terminal joints longer than thick, the abdomen, except the first segment being brownish-piceous, while the legs, except the hind coxæ and femora and tips of hind tibiæ, are yellowish, the hind coxæ and femora black, the tips of the hind tibiæ fuscous.

Type.—Cat. No. 5754, U. S. Nat. Museum. From Belkofski, July 22 (Fur Seal Commission).

DELETER FLAVIFRONS sp. nov.

Male.—Length 3 mm. Polished black; face below antennæ, mandibles and two stripes on the scape lemon-yellow; palpi, tegulæ, a dot in front, epitegulæ, apex of front coxæ, their trochanters, their femora except stripe beneath the tibiæ and tarsi *beneath*, sutures of middle and

hind trochanters, basis of their tibiæ, the tarsal joints more or less basally, and the first ventral abdominal segment and along the sutures of the second pale yellowish. Wings hyaline, the costæ brown-black, the stigma and internal veins brown.

The antennæ are 24-jointed, about as long as the body, filiform, brown-black; the first two joints of the flagellum are subequal, about $2\frac{1}{2}$ times as long as thick, the following to the last very gradually and imperceptibly shortening, the penultimate being very little longer than thick, the last fusiform, nearly as long as the two preceding united. Metathorax smooth, shining, at the most feebly aciculate posteriorly, the apical transverse and the pleural carinæ distinct. Abdomen, except the first segment, and the second feebly at base, smooth and shining, the first longitudinally aciculate, the second feebly and faintly aciculate at base only.

Type.—Cat. No. 5675, U. S. Nat. Museum. From Popof Island, July 10; St. Paul Island, August 24 (Fur Seal Commission).

Genus *Tapinops* Förster.

TAPINOPS CALIFORNICUS (Ashmead).

Orthocentrus californicus ASHMEAD, Proc. U. S. Nat. Mus., XII, p. 442, ♀, 1888.

Tapinops californicus ASHMEAD, Trans. Am. Ent. Soc., XXIII, p. 204, 1896.

Tapinops emarginatus DAVIS, *nec* Say, Trans. Am. Ent. Soc., XXIV, p. 222, 1897.

Tapinops abdominalis DAVIS, *nec* Provancher, *loc. cit.*

Tapinops pusillus DAVIS, *nec* Walsh, *loc. cit.*

From Sitka. Very common in the mountains of California.

Mr. Davis is clearly wrong, in making this species, and others, noted above, synonymous with *Ophion marginatus* Say, a species he never saw and which from Say's description cannot possibly belong to this genus: Long after his original description was published, Say wrote, "This species is very remarkable by the prominence of the head in front of the insertion of the antennæ which hence appear to be situated in a deep foveola; this character, together with the very short, robust feet proves a close relationship to *Alomya* to which in fact I would refer the species, but that there is *no appearance of a second cubital cellule; the antennæ have 36 joints.*" (Italics mine.)

Tapinops californicus Ashmead has an arcolet or second cubital cell and the antennæ have only 29 joints. Davis evidently overlooks this note on Say's species.

I have recognized Say's species; it does not even belong to this tribe, but belongs to a genus in the next tribe or the *Exochini*.

Genus *Atmetus* Förster.

ATMETUS INSULARIS Ashmead.

Atmetus insularis ASHMEAD, Fur Seals and Fur Seal Islands, IV, p. 337, ♀, 1899.

Type.—Cat. No. 4039, U. S. Nat. Museum. From Muir Inlet, June 12; St. Paul Island, August 22 (Fur Seal Commission). Originally described from Copper Island, in Bering Sea.

The male has the upper half of the face, the clypeus, the mandibles and a spot in front of the tegulæ, lemon-yellow; the front and middle coxæ and trochanters and the hind trochanters are yellowish-white; while the antennæ are 27-jointed, the flagellum brown-black, beneath towards base fulvous.

Genus *Orthocentrus* Gravenhorst.

ORTHIOCENTRUS NIGRITUS sp. nov.

Male.—Length 2.5 mm. Polished black; face below the antennæ but not the cheeks, lemon-yellow; mandibles testaceous; tegulæ and epitegulæ yellowish-white; legs mostly black with the front coxæ, trochanters, femora and tibiæ, except above, the sutures of middle coxæ and trochanters, apex of middle femora and the base of middle and hind tibiæ, rufo-testaceous; wings hyaline, the stigma and veins brown; abdomen, except the first dorsal segment and base of second, polished and impunctate; the first segment is longitudinally aciculated except a smooth longitudinal median space towards its base, while the second segment is aciculate from the basal oblique furrows, smooth and polished beyond.

Type.—Cat. No. 5676, U. S. Nat. Museum. From St. Paul Island, August 22 (Fur Seal Commission). One specimen.

Genus *Phænosemus* Förster.

PHÆNOSEMUS SITKENSIS sp. nov.

Male.—Length 4 mm. Polished black, the face distinctly, although somewhat sparsely, punctate; the upper margin of the facial elevation, mandibles, palpi, scape, tegulæ, apices of coxæ, the trochanters, knees and ventral fold yellow; remainder of legs brownish-yellow except the coxæ which are black, the hind femora which are brown-black, the middle and front femora basally and the terminal joints of the tarsi which are fuscous or dusky. The abdomen has the dorsal sutures 2, 3 and 4 yellowish. Wings hyaline, the stigma and veins brown, the closing vein of the areolet being pallid or subhyaline. The

metathorax is smooth but areolated, the lateral longitudinal carinæ being distinct from the spiracles, the pleural and two middle carinæ also distinct. The abdomen, except the first and second dorsal segments which are finely sculptured, is smooth and shining; the dorsal carinæ of the first segment extend almost to the apex of the segment.

Type.—Cat. No. 5677, U. S. Nat. Museum. From Sitka, July 16. One specimen.

Genus **Stenomærus** Förster.

STENOMÆRUS BOREALIS Ashmead.

Stenomærus borealis ASHMEAD, Fur Seals and Fur Seal Islands, iv, p. 338, 1899.

Type.—Cat. No. 4040, U. S. Nat. Museum. From Bering Island (Dr. L. Stejneger); Popof Island, Muir Inlet and Kukak Bay (Harriman Expedition); St. Paul Island and Unga Island (Fur Seal Commission).

Genus **Camarotops** Förster.

CAMAROTOPS KODIAKENSIS sp. nov.

Female.—Length 2.5 mm. Polished black, the face very sparsely microscopically punctate, the first dorsal segment of abdomen and the second segment except at apical third, strongly, irregularly, longitudinally aciculated; extreme superior margin of the frontal elevation testaceous; palpi and tegulæ white; mandibles testaceous; legs clear reddish-brown, the hind femora much swollen. Wings hyaline, the stigma and veins brown. Antennæ 24-jointed, brown, becoming black toward apex.

Type.—Cat. No. 5678, U. S. Nat. Museum. From Kodiak. One specimen.

Neuroteles americana, *N. liriodendri* and *Blephoctonus flavosus*, are erroneously placed by Davis in this genus; they belong in the genera in which they were originally placed.

Tribe **EXOCHINI**.

Genus **Triclistus** Förster.

TRICLISTUS CURVATOR (Fabricius):

Ichneumon curvator FABRICIUS, Ent. Syst., p. 179, 1775.

Exochus curvator GRAVENHORST, Ichn. Eur., II, p. 335, 1829.—STEPHENS, Illustr., VII, p. 265, 1828-46.—HOLMGREN, Svensk. Akad. Handl., p. 317, 1855.

? *Exochus fulvipes* CRESSON, Proc. Ent. Soc. Phila., III, p. 285, 1864.—CRESSON, Syn. Hym. N. Am., p. 213, 1887.

? *Exochus curvator* DAVIS, Trans. Am. Ent. Soc., XXIV, p. 213, 1897.

From Popof Island, July 8.

Genus **Metacælus** Förster.**METACÆLUS LÆVIS** (Cresson).

Exochus lævis CRESSON, Proc. Ent. Soc. Phila., III, p. 286, 1864.—WALSH, Trans. St. Louis Acad. Sci., III, p. 93, 1873.—CRESSON, Syn. Hym. N. Am., p. 213, 1887.

Metacælus lævis DAVIS, Trans. Am. Ent. Soc., XXIV, p. 214, 1897.—ASHMEAD, Smith's Ins. New Jersey, p. 579, 1900.

Type in collection of the American Entomological Society. From Berg Bay, June 10; Popof Island, July 10, 12; Sitka, June 16; Virgin Bay, June 26; and Yakutat, June 26. A common species.

Subfamily **OPHIONINÆ**.Tribe **OPHIONINI**.Genus **Ophion** Gravenhorst.**OPHION BILINEATUM** Say.

Ophion bilineatus SAY, MacLurian Lyc. Arts and Sci., I, p. 75, 1828.—SAY, Journ. Boston Soc. Nat. Hist., I, p. 248, 1835.—LECONTE'S Ed. Say's Works, I, p. 378, 1855.—NORTON, Proc. Ent. Soc. Phila., I, p. 358, 1863.—PROVANCHER, Fn. du Can. Hym., p. 351, 1883.—CRESSON, Syn. Hym. N. Am., p. 200, 1887.—ASHMEAD, Smith's Ins. New Jersey, p. 580, 1900.

From Sitka, June 16. Two females.

Genus **Enicospilus** Curtis.**ENICOSPILUS PURGATUS** (Say).

Ophion purgatus SAY, Journ. Boston Soc. Nat. Hist., I, p. 239, 1835.—EMMONS, Nat. Hist. New York, v.—NORTON, Proc. Ent. Soc. Phila., I, p. 358, 1863.—PROVANCHER, Fn. du Can. Hym., p. 351, 1883.—CRESSON, Syn. Hym. N. Am., p. 200, 1887.

Ophion lateralis LEPELETIES, Hist. Natur. Hym., IV, p. 141, 1846.

Enicospilus purgatus ASHMEAD, Smith's Ins. New Jersey, p. 580, 1900.

From Fox Point, July 28. One female.

Tribe **ANOMALINI**.Genus **Atrometus** Förster.**ATROMETUS ALASKENSIS** sp. nov.

Female.—Length 11 mm. Reddish-brown; occiput, a large spot on vertex enclosing the ocelli, prosternum and sides of pronotum, mesosternum and a streak on the mesopleura beneath the wings, metasternum and the suture at base of the metanotum, the depression across base of mesoscutellum, the antennæ, except scape beneath, two last dorsal abdominal segments, and the hind legs, except the apex of the

first tarsal joint and joints 2, 3 and 4, black (rarely reddish-brown with tips of tibiæ fuscous or black as in male); orbits, face below antennæ, cheeks, mandibles, scape beneath, lemon-yellow; the apex of joint 1 and joints 2 to 4 of hind tarsi yellowish-white; palpi and tegulæ white; front and middle legs reddish-yellow; wings hyaline, iridescent, the costæ and internal veins brown, the stigma yellowish.

Male.—Agrees well with the female, except in the usual sexual differences in the antennæ and abdomen, and in having the hind legs, except the tips of tibiæ and the tarsal joints yellowish-white, not black but reddish-brown, while the front and middle coxæ and trochanters are yellowish-white.

A single male supposed to be a variety of this species, agrees fairly well with the normal form, except that the temples and the thorax, except the mesonotum and the scutellum are wholly black.

Type.—Cat. No. 5679, U. S. Nat. Museum. From Sitka, June 16; Muir Inlet, June 11; Virgin Bay, June 26; Yakutat, June 21; and Kukak Bay, July 4.

Tribe CAMPOPLIGINI.

Genus **Campoplex** Gravenhorst.

CAMPOPLEX LATICINCTUS Cresson.

Campoplex laticinctus CRESSON, Proc. Ent. Soc. Phila., IV, p. 283, ♀, 1865.
—PROVANCHER, Fn. du Can. Hym., p. 362, 1883.—CRESSON, Syn. Hym. N. Am., p. 202, 1887.

Campoplex nigripes PROVANCHER, Le Nat. Can., VI, p. 145, 1874.

Type in collection of the American Entomological Society. From Kukak Bay, July 4; Pribilof Islands, July 12; Virgin Bay, July 20.

A common species, found throughout the Northern States, New York, White mountains in New Hampshire, Maine, Colorado, Kansas and Canada.

Genus **Zachresta** Förster.

ZACHRESTA POPOFENSIS sp. nov.

Male.—Length 7.5 mm. Black, coriaceous, the depressions at sides of the prothorax and the disk of the mesopleura lined; the mandibles and the legs, except the front and middle coxæ above, the hind coxæ entirely, first joint of their trochanters and the apex of the hind tibiæ and tarsi which are black, are red; the hind tibial spurs and annuli at base of tarsal joints 1 to 3 are, however, white; palpi and tegulæ yellowish-white. Wings hyaline, the stigma and veins brown-black; the areolet is petiolate, receiving the second recurrent nervure a little beyond its middle. Metathorax rather short, its posterior face

sharply oblique but with a small transverse quadrate basal area, the areola and petiolar areas being confluent and forming one large area; spiracles long-oval.

Type.—Cat. No. 5680, U. S. Nat. Museum. From Popof Island, July 10. One specimen.

ZACHRESTA KUKAKENSIS sp. nov.

Male.—Length 8 mm. Black, closely and distinctly punctate; mandibles ferruginous; palpi fuscous; tegulae black; the legs, except a pale yellowish spot on front coxae and trochanters, and the front femora beneath, their tibiae entirely and the middle tibiae, which are rufous, are black; the front and middle tarsi are dark fuscous, except narrowly at the sutures of the joints. Wings nearly hyaline, the stigma and veins dark brown, the arcolet petiolate, receiving the second recurrent nervure at the middle. Metathorax very short, obliquely sloping off from immediately back of the scutellum, without a basal area and without carinae, except the pleural carinae below the spiracles; spiracles long-oval.

Type.—Cat. No. 5681, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

Genus **Phædroctonus** Förster.

PHÆDROCTONUS MINUTUS sp. nov.

Female.—Length 3.5 mm. Black, opaque and very finely shagreened; scape and pedicel *beneath*, mandibles, palpi, tegulae, front and middle coxae and trochanters, the sutures and second joint of hind trochanters, an annulus at base of hind tibiae and a broad band at their middle, and tibial spurs, yellowish-white; the hind legs otherwise black, the front and middle legs, except as noted, reddish-yellow; abdomen black, with the venter, hypopygium and the terminal dorsal segment, honey-yellow. Wings hyaline, the stigma and veins brown, the arcolet entirely absent, the marginal cell being very broad, the first abscissa of the radius being nearly two thirds the length of the second.

Type.—Cat. No. 5682, U. S. Nat. Museum. From Popof Island, July 9. One specimen.

Genus **Olesicampa** Förster.

OLESICAMPA ALASKENSIS sp. nov.

Male.—Length 7 to 7.5 mm. Black, closely punctate, and clothed with a glittering white pubescence, that on the face rather dense. Scape beneath, two spots on clypeus nearly confluent anteriorly,

mandibles, tegulæ, front coxæ beneath and at apex, their trochanters, and the apex of the first joint and the second joint entirely of middle trochanters, pale yellowish or yellowish-white; palpi white; coxæ and first joint of middle and hind trochanters, except as noted, black; rest of legs rufous. Wings hyaline, the costæ blackish, the stigma and internal veins brown, the areolet small, very oblique and longly petiolate, the second recurrent nervure being interstitial with its apex. The abdomen is black, with the apex of the second dorsal segment, segments 3, 4 and 5 entirely, and the venter, except the last segment, rufous.

Type.—Cat. No. 5683, U. S. Nat. Museum. From Juneau, June 25. One specimen.

Genus **Hypothereutes** Förster.

HYPOTHEREUTES ANNULIPES sp. nov.

Female.—Length 7 mm.; ovipositor less than one third the length of the abdomen. Black, opaque, finely coriaceous; mandibles, prothoracic scale, and the legs, except tips of hind femora, their tibiæ and tarsi rufous, tips of hind femora, their tibiæ, except a broad median annulus or a long spot outwardly which is white, and tarsi black; palpi and tegulæ yellowish-white. Wings subhyaline, the stigma and veins brown-black, the areolet minute, petiolate. Metathorax incompletely areolated, the carinæ remaining poorly defined, but with the areola and petiolar area complete.

Type.—Cat. No. 5684, U. S. Nat. Museum. From Yakutat, July 21; Kukak Bay, July 4. Two specimens.

Genus **Ischnoscopus** Förster.

ISCHNOSCOPUS YAKUTATENSIS sp. nov.

Female.—Length 6.5 mm. Black, very finely, closely punctate, the metathorax completely areolated; mandibles and legs, except coxæ, rufous; palpi, tegulæ and epitegulæ yellowish-white; abdomen black, with the venter pale yellowish, dorsal segments 2 and 3 at apex rufous, the rufous on the third obliquely broadened laterally towards base, dorsal segment 4 and beyond, rufous at the sides. Wings hyaline, the stigma and veins brown-black, the areolet not small, subpetiolate, receiving the second recurrent nervure a little before its middle.

Male.—Length 6 mm. Agrees well with the female, except that dorsal abdominal segments 2 to 5 at apex are rufous, and the rufous along the sides of segments 3 to 5 extend clear to the base.

Type.—Cat. No. 5685, U. S. Nat. Museum. From Yakutat, June 21. Two specimens.

Genus *Limnerium* Ashmead.

LIMNERIUM YAKUTATENSE sp. nov.

Female.—Length 6 mm. Black, finely opaquely shagreened, mandibles, labrum and legs, except coxæ and the first joint of hind trochanters, rufous; palpi and tegulæ yellowish, the epitegulæ white. Abdomen black, with the ventral segments more or less banded or spotted with white, the dorsal segments *laterally* more or less rufous or spotted with rufous, the third segment also with a rufous band at apex, usually narrowed medially and even sometimes interrupted medially. Wings hyaline, the stigma and veins brown black, the areolet rather large, petiolate receiving the second recurrent nervure before its middle.

Male.—Very similar to female except that the rufous spots on the sides of dorsal abdominal segments 3 and 4 are usually extended above and unite to form a band at apex of the segments; otherwise it is practically identical with the female.

Type.—Cat. No. 5686, U. S. Nat. Museum. From Yakutat, June 21. Many specimens.

This species, in color, imitates *Ischnoscopus yakutatensis* and could be easily confused with it.

Genus *Ameloctonus* Förster.

AMELOCTONUS POPOFENSIS sp. nov.

Female.—Length 5 mm. Black, opaque, finely coriaceous; mandibles, palpi, tegulæ, epitegulæ, apices of front coxæ, their trochanters and the middle trochanters, yellowish-white; coxæ and first joint of hind trochanters black; extreme tips of hind tibiæ and their tarsi fuscous; remainder of legs ferruginous. Wings hyaline, the stigma and veins brown, the areolet sessile, receiving the second recurrent nervure beyond its middle. Metathorax arcolated, the areola elongate, narrowed and open behind.

Type.—Cat. No. 5687, U. S. Nat. Museum. From Popof Island, July 10.

Tribe *PANISCINI*.Genus *Paniscus* Gravenhorst.

PANISCUS ALASKENSIS sp. nov.

Male.—Length 10 mm. Head yellow, with purplish-brown eyes, and very much as in *Paniscus geminatus* Say, except that the ocelli are not placed on a black spot, and the lateral ocelli do not quite touch

the eye margin, as in that species. The thorax and abdomen are pale honey-yellow; a stripe on sides of prosternum, the lateral margins of the mesonotum, and a stripe on the parapsidal furrows behind, are yellowish-white; the apical transverse carina is indicated only laterally, being wholly obliterated medially, the surface of the metanotum before it being very finely, transversely aciculate, behind it polished and impunctate. Wings hyaline, the venation as in *P. geminatus*, the costal vein and the stigma yellow, the subcostal vein and the internal veins being brown or brown black. External claspers similar to those in *P. geminatus* but slightly narrower.

Type.—Cat. No. 5688, U. S. Nat. Museum. From Kukak Bay, July 4. Five specimens.

Tribe MESOCHORINI.

Genus *Mesochorus* Gravenhorst.

The three species belonging to this genus, found in Alaska, may be tabulated as follows:

1. Polished black.

All coxæ and legs pale yellowish or reddish-yellow.....2.

All coxæ mostly black, the front and middle coxæ usually pale at apex.

Legs honey-yellow, the apical two thirds of hind femora and the tips of their tibiæ fuscous; cheeks, clypeus anteriorly and the extreme apex of second dorsal segment of abdomen pale yellowish. Female.

M. kincaidi.

2. Face, clypeus, cheeks and lower part of temples yellowish-white.

Prothorax pale yellowish; abdomen black, with the apex of the second dorsal segment connected with a triangular median spot, a median line on the third and continued on to the fourth, pale yellowish.

Male.....*M. orca*.

Prothorax, except its sternum, black; abdomen black, with the venter and second dorsal suture white. Male.....*M. frontalis*.

MESOCHORUS KINCAIDI sp. nov.

Female.—Length 3 mm. Polished black; cheeks, anterior margin of the clypeus and the mandibles flavo-testaceous; pedicel and flagellum brown, the latter darker towards apex; palpi, tegulæ, ventral fold, the narrow membranous margins of dorsal abdominal segments 1 and 2, and the extreme apex of dorsal segment 2 yellowish-white; legs, except the middle and hind coxæ, apex of hind tibiæ, and tips of the joints of hind tarsi honey-yellow; middle and hind coxæ black, the

hind femora dusky, tips of hind tibiae and tarsi fuscous. Wings hyaline, the stigma and veins brown. Antennæ 32-jointed, the first joint of the flagellum the longest, nearly as long as joints 2 and 3 united.

Type.—Cat. No. 5689, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

MESOCHORUS ORCÆ sp. nov.

Male.—Length 4 mm. Polished black except as follows: The face below the antennæ, clypeus, cheeks, mandibles, scape and pedicel, prothorax, a band on the mesopleura *below*, front coxæ and trochanters, middle trochanters, ventral fold, the apex of the second dorsal abdominal segment connected with a triangular median spot and a median stripe on dorsal segments 3 and 4, pale yellowish or yellowish-white; legs, except as noted, reddish-yellow. Wings hyaline, the stigma yellowish-white, the costæ and internal veins brown.

Type.—Cat. No. 5690, U. S. Nat. Museum. From Orca, June 27. Two specimens.

MESOCHORUS FRONTALIS Ashmead.

Mesochorus frontalis ASHMEAD, Fur Seals and Fur Seal Isl., iv, p. 336, ♂, 1899.

Type.—Cat. No. 4037, U. S. Nat. Museum. From Bering Island (Mr. Barrett-Hamilton); Pribilof Islands (Fur Seal Commission).

Tribe PORIZONINI.

Genus *Isurgus* Förster.

ISURGUS ALASKENSIS sp. nov.

Female.—Length 2.8 mm.; ovipositor longer than the abdomen. Black; mandibles and legs, except the coxæ, more or less of the trochanters and the hind legs almost entirely, rufous; hind legs sometimes wholly rufous.

Head, except cheeks and temples, opaque, finely coriaceous; thorax, **except** the parapsidal furrows and a quadrate depressed space on the mesonotum posteriorly, which are coriaceous and opaque, shining, the metathorax short and shining, although feebly wrinkled, the apical transverse carina distinct and connected with two close parallel carinae on the middle of the metanotum. Wings hyaline, the stigma and veins brown.

Abdomen longly petiolate, the body compressed, smooth and shining.

Type.—Cat. No. 5691, U. S. Nat. Museum. From Popof Island, July 9, 12. Two specimens.

Tribe *PLECTISCINI*.*Catastenus* Förster.*CATASTENUS ALASKENSIS* sp. nov.

Female.—Length 3.5 to 4 mm.; ovipositor not longer than the petiole. Polished black, except the metathorax which is wrinkled and completely areolated, the first and second segments of the abdomen which are coriaceous and opaque and the third segment at base which is feebly sculptured; palpi yellowish; legs, except hind coxæ, rufous, the hind femora more or less dusky; abdomen with the apex of the second dorsal segment, the third entirely and the apex of the fourth, testaceous or yellowish; sometimes the apex of the fifth segment is yellowish.

The antennæ are 22-jointed, brown, and slightly and gradually thickened toward apex. Wings hyaline, the stigma and veins brown.

Male.—Agrees well with the female, except that the antennæ are 24-jointed, filiform and brown-black, the middle and hind coxæ are black, the hind femora brown-black, their tibiæ and tarsi subfuscous, while the abdomen has the apices of the segments yellow.

Type.—Cat. No. 5692, U. S. Nat. Museum. From St. Paul Island, July 10, 17.

CATASTENUS TRIFASCIATUS Ashmead.

Catastenus trifasciatus ASHMEAD, *Fur Seals and Fur Seal Isl.*, iv, p. 336, 1899.

Type.—Cat. No. 4038, U. S. Nat. Museum. From Bering Island (Dr. L. Stejneger); St. Paul Island (Fur Seal Commission).

Genus *Plectiscus* Gravenhorst.*PLECTISCUS ORCÆ* sp. nov.

Female.—Length 3 mm. Polished black; clypeus, scape and pedicel beneath, the ring-joint, mandibles, palpi, tegulæ, prosternum, the lower margin of the prothorax, legs entirely, the ventral fold, and the apices of dorsal abdominal segments 2 and 3 and base of third narrowly, pale yellowish. Wings hyaline, the stigma and veins brown. Antennæ 21-jointed, the flagellum brown. Metathorax with a strong transverse carina and with lateral carinæ, the arcola oblong-quadrangle. Abdomen, except the petiole and the second segment at base, highly polished, impunctate, the petiole more than thrice longer than thick, opaque and strongly coriaceous, the second segment at base feebly sculptured.

Type.—Cat. No. 5731, U. S. Nat. Museum. From Orca, June 27.
One specimen.

Family **ALYSIIDÆ**.

Subfamily **ALYSIINÆ**.

Tribe **ALYSINI**.

Genus **Alysia** Latreille.

ALYSIA MANDUCATOR (Panzer).

- Ichneumon manducator* PANZER, Fn. Ins. Germ., VI, p. 72, Pl. 4, 1799.—THUNBERG, Bull. Acad. Sc., St. Petersburg, VIII, 1822.—THUNBERG, Mém. Acad. Sc., St. Petersburg, IX, p. 346, 1824.—CUVIER, Règne animal. Ed. 3^a, Ins., II, Pl. 112, f. 9, 1849.
- Bassus manducator* PANZER, Krit. Rev., II, p. 75, 1806.—NEES, Mag. Ges., Berlin, p. 202, 1814.
- Alysia stercoraria* LATREILLE, Hist. Nat., XIII, p. 177, 1805.—LAMARCK, Hist. Nat. Anim. s. vert. Ed., 2^a, IV, p. 357, 1835.
- Bracon manducator* JURINE, Nouv. Méth. Hym., p. 118, ♀, 1807.—TRENTÉPOHN, Isis, p. 960, 1829.
- Cæchenus manducator* ILLIGER, in Rossi's Faun. Etrusca, Ed. 2^a, II, p. 54, 1807.—ILLIGER, Magaz. f. Insectenk., VI, p. 15, 1809.
- Alysia manducator* LATREILLE, Gen. Crust. et Ins., IV, p. 15, 1809.—LEPELETIER, Encycl. Méth., X, p. 432, 1825.—CURTIS, Brit. Ent., III, p. 141, 1826.—BONCHÉ, Naturg. d. Forstins, p. 147, 1834.—HALIDAY, Ent. Mag., I, p. 265, 1833; *idem*, V, p. 220, ♀♂, 1838, Pl. F, f. 1 and 28.—ZETTERSTEDT, Ins. Lappon., I, p. 401, 1838.—BLANCHARD, Hist. Nat. Ins., III, p. 345, 1840.—WESTWOOD, Intro. Mod. Classif. Ins., II, Synop., p. 65, 1840.—CURTIS, Farm. Ins., p. 144.—GUÉRIN, Iconogr. règn. anim., p. 411, 1845.—RUTHE, Stettin. ent. Zeitg., XX, p. 319, 1859.—FÖRSTER, Verh. naturh. Ver. preuss. Rheinl., XIX, p. 265, 1862.—VOLLENHOVEN, Pinacogr., p. 23; Pl. 15, f. 2, ♀, f. 3, ♂, 1876.—MARSHALL, Trans. Ent. Soc. London, p. 508; Pl. 11, f. 4, ♀, 1894.—MARSHALL, in André's Spec. Hym. Eur., V, p. 376, 1894.—THOMSON, Opus. Ent. Fasc., 20, p. 2295, ♀♂, 1895.—DALLA TORRE, Cat. Hym., IV, p. 47, 1898.
- Alysia fossulata* PROVANCHER, Add. Fn. Hym., p. 391, ♀, 1888.—DALLA TORRE, Cat. Hym., IV, p. 45, 1898.

From Belkofski, July 22.

This common European species is parasitic in the larvæ of various Diptera. In Europe it has been bred from *Lucilia cæsar* L., *Cyrtoneura stabulans* Fall., and *Hydrotæa dentipes* Fabr.

Genus **Anarcha** Förster.

ANARCHIA COXALIS sp. nov.

Male.—Length 3 mm. Polished black; mandibles, except teeth, scape beneath, and the legs, except coxæ, rufo-testaceous; front coxæ basally and the middle and hind coxæ black; tips of hind tibiæ and their tarsi subfuscous; palpi, ring-joint of antennæ and tegulæ pale yellowish. Wings hyaline, the large stigma and the veins brown. Antennæ very long, 42-jointed. Metathorax opaque, rugulose and

areolated. Abdomen, except the first segment, polished black impunctate, the first segment longitudinally striate.

Type.—Cat. No. 5693, U. S. Nat. Museum. From Sitka, June 16. One specimen.

Tribe *ALLÆINI*.

Genus *Delocarpa* Förster.

DELOCARPA SITKENSIS sp. nov.

Female.—Length 2 mm. Polished black, the first segment of the abdomen, and the second towards base reddish-brown; mandibles red; legs rufo-testaceous, the femora and hind tibiæ toward apex and their tarsi dusky. Antennæ 17-jointed, the scape and pedicel brown, the flagellum black, the joints delicately fluted; the first joint of the flagellum is obconical, about thrice as long as thick, the following to the ninth are oblong but imperceptibly become shorter and shorter, those beyond to the last being quadrate or nearly so, scarcely longer than thick. Wings hyaline, the long linear stigma and the internal veins being light brown or brownish-yellow. Metathorax rather coarsely rugulose. Abdomen polished, impunctate, except the first segment which is longitudinally striate.

Type.—Cat. No. 5694, U. S. Nat. Museum. From Sitka, June 16. One specimen.

Subfamily *DACNUSINÆ*.

Genus *Rhizarcha* Förster.

RHIZARCHA HARRINGTONI sp. nov.

Male.—Length 4 mm. Head and thorax black, shining; scape, pedicel, abdomen except petiole, and the legs brownish-yellow, the dorsal abdominal segments with a fuscous tinge at the sutures, the hind tarsi and sheaths of the ovipositor fuscous; palpi whitish. Wings hyaline, the narrow stigma and the veins brown. Antennæ about 40-jointed, the flagellum black, the joints cylindrical, clothed with a short, rather dense pubescence. Mesonotum with a long median grooved line posteriorly. Metathorax rugulose, clothed with a rather dense yellowish pubescence. Abdomen, except as noted, brownish-yellow, polished, impunctate, the first segment black, rugulose.

Type.—Cat. No. 5695, U. S. Nat. Museum. From Juneau, July 25. One specimen.

Genus *Gyrocampa* Förster.

GYROCAMPa ALASKENSIS sp. nov.

Female.—Length 2 mm.; ovipositor not longer than the first joint of hind tarsi. Polished black; mandibles red; tegulæ and legs, ex-

cept as noted, dark rufous, the middle and hind coxæ black or fuscous, the trochanters, base of tibiæ and tarsi honey-yellow. Wings hyaline, the linear stigma and the internal veins brown. Antennæ 24-jointed, the scape and pedicel black, the ring-joint yellow, the flagellum brown-black. The mesonotum has a median grooved line posteriorly just in front of the scutellum; the scutellum has a transverse crenate furrow across its base; the mesopleura have a crenate fovea on their disk; the metathorax is coarsely rugose and rather densely pubescent, while the abdomen, except the first segment which is finely rugulose and pubescent, is smooth and polished.

Type.—Cat. No. 5696, U. S. Nat. Museum. From St. Paul Island, August 22 (Fur Seal Commission).

Genus **Liposcia** Förster.

LIPOSCIA DUBIOSA sp. nov.

(Pl. XI, fig. 1.)

Male.—Length 1.5 mm. Polished black; mandibles reddish; palpi white; tegulæ and legs, except the hind tibiæ and tarsi, brownish-yellow; the hind tibiæ, except an annulus at base, and the tarsi fuscous. Wings hyaline, the very narrow lanceolate stigma and the veins being brown. Antennæ long, 27-jointed, black, with the scape beneath and an annulus at the base of the first joint of the flagellum yellow. Mesonotum with a short median grooved line posteriorly, the fovea at base of scutellum divided into two divisions by a delicate median carina, the mesopleura with a smooth discal fovea a little behind the middle, while the metathorax is feebly wrinkled posteriorly and at sides but smooth and shining at base above. Abdomen, except the first segment, smooth and shining, the first segment rugulose and carinate.

Type.—Cat. No. 5697, U. S. Nat. Museum. From Unalaska. One specimen.

Family **BRACONIDÆ**.

Subfamily **APHIDIINÆ**.

Genus **Praon** Haliday.

PRAON ALASKENSIS sp. nov.

(Pl. XI, fig. 3.)

Male.—Length 2 mm. Polished black; mandibles testaceous; palpi and annulus at base of flagellum, yellowish-white; legs rufo-testa-

ceous, the front coxæ and trochanters beneath yellowish, the middle coxæ basally and the hind coxæ blackish. Antennæ 25-jointed, longer than the body, the joints of the flagellum about thrice as long as thick. Thorax with distinct parapsidal furrows, the metathorax feebly alutaceous but shining, the pleural carinæ indistinctly defined, the median carina wanting, the spiracles small and round. Wings hyaline, the costal vein, basal nervure and parastigma piccous black, the stigma and internal veins brown. The abdomen, except the first segments, is smooth, shining and impunctate; the first segment is a little longer than wide, shorter than the second, finely rugulose, especially towards base, and has distinct lateral carinæ.

Type.—Cat. No. 5698, U. S. Nat. Museum. From St. Paul Island, August 16 (Fur Seal Commission). Two specimens.

Genus *Aphidius* Nees.

TABLE OF SPECIES.

1. Males.....4.

2. Females.

Antennæ less than 19-jointed.....3.

Antennæ 19-jointed.

Head and thorax black; mandibles and tegulæ pale yellowish; legs brownish-yellow; abdomen rufo-piccous, polished, the petiole black, finely rugulose.....*A. glacialis*.

3. Antennæ 16-jointed, the last joint very long, as long as joints 14 and 15 united.

Black; abdomen with its tip and the second dorsal segment at apex yellowish; legs black or piccous black, the sutures of trochanters, extreme tips of femora, an annulus at base of tibiæ and mandibles, honey-yellow; antennæ black, the first joint of flagellum not quite as long as the second, joints 13 to 15 about $1\frac{1}{2}$ times as long as thick.

A. frigidus.

Antennæ 15-jointed, the last joint shorter than joints 13 and 14 united.

Black; abdomen with the second and third dorsal segments rufo-piccous (rarely wholly black); legs brownish-yellow or flavo-testaceous, the hind coxæ blackish; mandibles and first four joints of antennæ yellowish or testaceous; first five joints of flagellum elongate, nearly six times as long as thick; joint 14 not quite twice as long as thick.

A. paulensis.

4. Antennæ 21-jointed, or less.....5.
 Antennæ 22-jointed.

Black; abdomen with the second dorsal segment rufo-piceous at apex; mandibles rufo-piceous; palpi fuscous; metanotum smooth, without a median carina, the apical transverse carina alone present.

A. propinquus.

5. Antennæ 18-jointed.....6.
 Antennæ 21-jointed.

Black; mandibles reddish; palpi blackish; metanotum smooth but with a median carina; legs mostly black, with an annulus at base of tibiæ and their extreme apices usually honey-yellow or testaceous.

A. frigidus.

6. Black; abdomen with the apex of the petiole and sometimes more or less of the second segment rufo-testaceous, more yellowish in the sutures; femora and tibiæ above, and especially the middle hind pairs, fuscous, the coxæ black or rufo-piceous; metanotum short, with a diamond-shaped arcola*A. paulensis.*

APHIDIUS PROPINQUUS sp. nov.

Male.—Length 3.3 mm. Polished black; mandibles reddish; palpi fuscous; legs, except a reddish piceous tinge at the sutures of joints, entirely black; abdomen, except a reddish or rufo-piceous band at apex of the second dorsal segment black. Antennæ 22-jointed, the joints of the flagellum delicately fluted and not more than twice longer than thick. Metanotum smooth with only the apical transverse carina present. Wings hyaline, veins brown, stigma yellowish or pale within.

Type.—Cat. No. 5699, U. S. Nat. Museum. From St. Paul Island, August 8, 20 (Fur Seal Commission). Two specimens.

APHIDIUS GLACIALIS sp. nov.

Female.—Length 2.8 mm. Head and thorax black, smooth and shining; abdomen, except the first segment dark rufous or rufo-piceous; mandibles, mouth parts, annulus at base of flagellum, tegulae, and the front coxæ and trochanters, pale yellowish; remainder of legs brownish-yellow, the basal joint of the middle tarsi scarcely longer than joints 2 and 3 united, the basal joint of hind tarsi nearly as long as all the other joints united.

The antennæ are 19-jointed, black, shorter than the body, the third joint being about four times as long as thick. Abdomen rufo-piceous, smooth and shining, except the first segment which is black, finely rugulose and fully thrice as long as thick.

Type.—Cat. No. 5700, U. S. Nat. Museum. From Juneau, July 25. One specimen.

APIIDIUS FRIGIDUS sp. nov.

(Pl. XI, fig. 4.)

Female.—Length 3.5 mm. Polished black; abdomen with its apex or the sutures of the two apical segments and the apex of the second dorsal segments testaceous or yellowish, or sometimes the second and third segments testaceous; mandibles, tips of palpal joints, sutures of trochanters, knees and an annulus at base of flagellum, honey-yellow or yellowish. Wings hyaline, the stigma pale within, the outer margins and the internal veins brown.

The antennæ are 16-jointed and hardly two thirds the length of the body, the first three joints of the flagellum are subequal, a little more than thrice longer than thick. Metathorax smooth and areolated, the median carina being distinct. Abdomen elongate lanceolate, compressed and pointed towards apex, smooth and polished, except the first segment which is finely rugulose, nearly four times as long as thick and with the spiracles placed before the middle.

Male.—Differs principally in having the antennæ 21-jointed, the joints of the flagellum being much shorter, the first three joints hardly thrice as long as thick, while the abdomen is shorter, compressed from the apex of the second segment and nearly always entirely black.

Type.—Cat. No. 5701, U. S. Nat. Museum. From St. Paul Island, August 8 to 20 (Fur Seal Commission). Many specimens.

APHIDIUS PAULENSIS sp. nov.

Female.—Length 1.6 to 2 mm. Polished black; mandibles reddish; palpi and tegulæ whitish; first four joints of the antennæ and the legs brownish-yellow. Wings hyaline, the stigma lanceolate, pallid, the outer and internal veins brownish.

The antennæ are 15-jointed, brown-black from the fifth joint; the first three joints are about four times as long as thick, the following to the last, shorter, the last joint being shorter than joints 13 and 14 united. Thorax with the parapsidal furrows incomplete, only vaguely defined anteriorly, the metathorax short with a diamond-shaped areola. Abdomen depressed, petiolated and terminating in a distinct ovipositor, which is longer than the basal joint of the hind tarsi; the petiole is more than thrice longer than thick and finely wrinkled.

Male.—Differs in having the antennæ 18-jointed, black, except an annulus at base of the third joint, and in having the legs, except the sutures of trochanters, and the femora and tibiæ especially of the front and middle legs, *beneath*, which are rufo-testaceous, all black.

Type.—Cat. No. 5702, U. S. Nat. Museum. From St. Paul Island, August 15 to 20 (Fur Seal Commission). Nine specimens.

Subfamily *HELCONINÆ*.

Tribe *DIOSPILINI*.

Genus *Dyscoletes* Westwood.

DYSCOLETES ALASKENSIS sp. nov.

Male.—Length 3.2 mm. Polished black; mandibles, except teeth, and the legs, except front coxæ and hind tibiæ and tarsi, pale ferruginous; palpi, tegulæ and front coxæ yellowish; hind tibiæ, except an annulus at base, and their tarsi fuscous, the tips of the tarsal joints yellowish. Wings hyaline, the stigma and veins brown.

The antennæ are 33-jointed, very long, much longer than the body and, except the scape beneath which is more or less piceous, black. Thorax with the parapsidal furrows distinct anteriorly and terminating in a finely punctate depression before the base of the scutellum; the metathorax is shining but finely wrinkled and tricarinate—a median and two lateral carinæ. The abdomen is subcompressed at apex, polished black, the ventral fold testaceous, the first segment feebly wrinkled, especially laterally beyond the spiracles, which are rather large and placed before the middle, and with a delicate median carina on its apical portion.

Type.—Cat. No. 5703, U. S. Nat. Museum. From Popof Island.

Subfamily *CHELONINÆ*.

Genus *Chelonus* Jurine.

CHELONUS IRIDESCENS Cresson.

Chelonus iridescens CRESSON, Proc. Ent. Soc. Phila., IV, p. 294, 1865.—PROVANCHER, Fn. du Can. Hym., p. 532, 1883.—CRESSON, Syn. Hym. N. Am., p. 225, 1887.

Type in collection of the American Entomological Society. From Kukak Bay, July 4. Two specimens. Occurs also in Canada, Colorado, New Mexico and elsewhere in the United States.

Subfamily *MICROGASTERINÆ*.

Genus *Protapanteles* Ashmead.

PROTAPANTELES ALASKENSIS sp. nov.

Male and Female.—Length 3 mm. Black, smooth and impunctate; mandibles rufous; palpi pale yellowish; legs, except coxæ and as here-

after noted, honey-yellow, the coxæ black, the apices of hind femora and their tarsi fuscous or subfuscous, the tibial spurs and the first joint of hind tarsi at base, yellowish-white. Wings hyaline, the stigma and veins except the subcostal, median and submedian veins basally, brown.

The abdomen, except the membranous lateral margins of the first dorsal segment and a large translucent or semitranslucent spot on the second ventral segment, is black and shining; the plate of the first segment is long, narrow, and slightly narrowed towards apex; the second segment is shorter than the third, has two oblique furrows and its surface is feebly alutaceous, especially along the furrows.

Male.—Differs from the female principally in the color of the legs. The hind femora, base of middle femora and the apical half of the hind tibiæ and their tarsi are fuscous; otherwise, except in the sexual abdominal differences, it is scarcely separable from the female.

Type.—Cat. No. 5704, U. S. Nat. Museum. From Virgin Bay, June 26; Farragut Bay, June 5; Yakutat, June 21.

PROTAPANTELES GLACIALIS sp. nov.

Male.—Length 2.1 mm. Black; face and thorax above very finely punctulate, sericeous; palpi beneath yellowish, above fuscous; legs mostly black, the front trochanters beneath, their femora beneath and at apex, their tibiæ wholly, and their tarsi beneath, apices of middle femora, bases of their tibiæ, and the knees of hind legs, honey-yellow, or testaceous. Wings hyaline, the stigma and stigmal vein brown, the internal and basal veins pallid. The abdomen, except the lateral membranous margins of segments 1 and 2 which are brown, is black and shining; the plate of the first segment is oblong, nearly the same width throughout, alutaceous and subopaque; while the second segment is shorter than the third, has two oblique furrows and is finely aciculate.

Type.—Cat. No. 5705, U. S. Nat. Museum. From Muir Inlet, June 12. One specimen.

PROTAPANTELES ALTICOLA sp. nov.

Male and Female.—Length 2.6 to 3 mm. Black; mandibles ferruginous; palpi yellowish; legs, except the hind coxæ and last joint of tarsi, ferruginous, the hind coxæ black, the last joint of tarsi fuscous; sometimes there is a dusky or fuscous streak on the middle and hind femora above. Wings hyaline, the tegulæ yellowish, the stigma and veins brown. Head and thorax smooth or nearly so, at most with some sparse, microscopic punctures, the face with a median ridge, the

metathorax alutaceous, without trace of carinæ. The abdomen is much compressed towards apex, black and shining, with the lateral membranous margins of the first segment yellowish; the plate of the first segment is long, narrowed towards apex, fully thrice as long as wide at base; the second segment is shorter than the third, with two oblique furrows, the plate formed by the furrows being trapezoidal in outline and very delicately aciculate.

Male.—Differs from female in being longer and with longer antennæ, in having the apical half of the hind tibiæ and their tarsi fuscous, and in having the lateral margins of the first and second segments, and the third suture, yellowish.

Type.—Cat. No. 5706, U. S. Nat. Museum. From St. Paul Island, August 16 (Fur Seal Commission). Four specimens.

Genus *Apanteles* Förster.

APANTELES YAKUTATENSIS sp. nov.

Female.—Length 2.5 mm. Black; mandibles, except at base and the teeth, rufous; palpi yellowish; legs, except coxæ, first joint of trochanters, apices of hind femora, and their tarsi ferruginous; coxæ and first joint of trochanters black; apices of hind femora and their tarsi fuscous; middle and front tarsi above subfuscous. Wings hyaline, the stigma and apices of the costæ dark brown, the internal veins paler, the costal veins toward base yellowish, the tegulæ piceous black.

The head above is polished, impunctate, the face sparsely but distinctly punctate; thorax above, except a space laterally above and in front of the tegulæ, closely punctate; the scutellum is smooth or nearly so; the mesopleura on disk above and beyond the median impression are smooth and highly polished but anteriorly and below the middle they are finely punctate; while the metathorax is rather coarsely rugose, the median carina being almost entirely obliterated. The abdomen, except the first and the second segments which are rugulose, is smooth and polished; the third dorsal segment is somewhat shorter than the second.

Type.—Cat. No. 5707, U. S. Nat. Museum. From Yakutat, June 21. Two specimens.

Genus *Microplitis* Förster.

MICROPLITIS ALASKENSIS sp. nov.

Female.—Length 3.6 mm. Black, closely punctate; palpi yellow, with the basal joints black; legs ferruginous, with all coxæ and tro-

chanters black, except the second joint of trochanters, base of middle and hind femora, extreme apex of hind tibiæ and their tarsi; tegulæ piceous black. Wings hyaline, the costæ to near apex, a spot at base of stigma and most of the internal veins brownish-yellow, the apices of the costal veins, stigma and post-stigmal vein dark brown. Metathorax coarsely rugose, the pleural carinæ strongly elevated, the median carina distinct. The abdomen, except the first segment which is rugulose, and the second segment which is feebly alutaceous, with a broad median swelling, is smooth and polished.

Type.—Cat. No. 5708, U. S. Nat. Museum. From Juneau, July 25. One specimen.

Subfamily *ICHNEUTINÆ*.

Genus *Ichneutes* Nees.

ICHNEUTES REUNITOR Nees.

Ichneutes reunitor NEES, Mag. Ges. naturf. Fr. Berlin, VII, p. 276; Tom. 7, f. 5, 1813.—WESMAEL, Nouv. Mém. Acad. Sc. Bruxelles, XI, p. 156, 1838.—BLANCHARD, Hist. Nat. Inst., III, p. 335, 1840.—WESTWOOD, Intro. Mod. Class. Ins., II, Synop., p. 63, 1840.—RATZBURG, Ichn. d. Forstins., III, p. 69, 1852.—FÖRSTER, Verh. Naturh. Ver. pr. Rheinl. XIX, p. 255, 1862.—MARSHALL, Ent. Mo. Mag., XII, p. 195, 1876.—MARSHALL, Trans. Ent. Soc. London, p. 183, 1889.—MARSHALL, in André's Spec. Hym. Eur., V, p. 211, 1893.—THOMSON, Opus. Ent. Fasc., 20, p. 2214, 1895.—DALLA TORRE, Cat. Hym., IV, p. 88, 1898.

From Popof Island, July 11. Two specimens.

Parasitic in the larvæ of saw-flies, belonging to the family Nematidæ, and is widely distributed over Europe from the Arctic Circle to the Mediterranean. Here first recorded from North America.

ICHNEUTES POPOFENSIS sp. nov.

Male.—Length 3 mm. Black, shining, and clothed with a sparse, glittering white pubescence; mandibles rufous, black basally; palpi and the legs, except the coxæ and the middle and hind trochanters which are black, pale ferruginous.

The antennæ are 27-jointed, as long as the body, slender toward tips, the third joint the longest, not quite as long as joints 4 and 5 united, joint 8 and joints beyond, a little more than twice longer than thick. Wings hyaline, the costæ, outer margins of parastigma and the stigma, brown black, the stigma within and the internal veins brownish-yellow; the first abscissa of the radius is hardly developed, not longer than the very short, second transverse cubitus, and leaving the second cubital cell subsessile. The metathorax is coarsely rugulose,

without an areola. The abdomen is elongate, the first segment long and narrowed towards base, shagreened, with a longitudinal median elevation, the dorsal carinæ only distinct basally, the second segment, except very feebly in the basal depressions, and the following segments being smooth and impunctate.

Type.—Cat. No. 5709, U. S. Nat. Museum. From Popof Island, July 9. One specimen.

ICHNEUTES ALASKENSIS sp. nov.

Male.—Length 4 mm. Resembles *I. popofensis* but the palpi are subfuscous, the antennæ shorter, 24-jointed, the legs darker, the middle femora basally, the hind femora, their tibiæ, except basally and beneath, and their tarsi being black or dark fuscous, the first abscissa of the radius is distinct, half the length of the first transverse cubitus, while the first and second abdominal segments are coarsely rugulose, the first segment being broad and having the dorsal carinæ distinct to at least the middle.

Type.—Cat. No. 5710, U. S. Nat. Museum. From Popof Island, July 11. One specimen.

Subfamily OPIINÆ.

Genus *Desmiostoma* Förster.

DESMIOSTOMA KUKAKENSE sp. nov.

Female.—Length 3 mm.; ovipositor very short, subexserted, the sheaths black. Polished black, impunctate; clypeus and mandibles rufous; palpi, pedicel narrowly at apex, tegulæ, and the legs, except the hind coxæ, pale brownish-yellow, the hind coxæ basally and posteriorly blackish. Wings hyaline, the lanceolate stigma and the veins light brownish.

The antennæ are longer than the body; the mesonotum has an elongate, median, crenate fovea posteriorly just in front of the scutellum, the parapsidal furrows not being defined except far anteriorly on the slope where they are deep and crenate; the scutellum has a transverse crenate furrow across its base; while the metathorax is rugulose without carinæ. Wings with the venation normal, the submedian cell longer than the median, the first recurrent nervure being almost interstitial with the first transverse cubitus, while the second cubital cell is elongate, the second abscissa of the radius being somewhat more than twice the length of the first. Abdomen long oval,

smooth and impunctate, except the first segment which is longitudinally striate.

Male.—Differs from female in having the antennæ longer, a faint median carina on the metathorax and in having the hind coxæ yellow, not black.

Type.—Cat. No. 5711, U. S. Nat. Museum. From Kukak Bay, July 4; Seldovia, July 21.

Subfamily *BRACONINÆ*.

Tribe *BRACONINI*.

Genus *Macrodyctium* Ashmead.

MACRODYCTIUM POLITUM sp. nov.

Female.—Length 3 mm.; ovipositor scarcely one third the length of the abdomen. Polished black, impunctate, except the second abdominal segment which has some longitudinal aciculations at its basal middle; mandibles rufous; palpi fuscous; second joint of trochanters, apical third of front femora and their tibiæ, and the middle and hind tibiæ basally honey-yellow. Wings hyaline, the stigma and veins brown, the tegulæ black.

Type.—Cat. No. 5712, U. S. Nat. Museum. From Kukak Bay, July 4. One specimen.

Subfamily *RHOGADINÆ*.

Tribe *EXOTHECUS*.

Genus *Exothecus* Wesmael.

EXOTHECUS ALASKENSIS sp. nov.

Female.—Length 2 mm.; ovipositor less than half the length of the abdomen. Polished black, impunctate, except the collar and the metathorax which are finely rugulose, opaque, and the first segment of abdomen which is longitudinally striate; remainder of abdomen smooth and shining, black, except dorsal segments 2 and 3 which, in certain lights, have a rufopiceous tinge; the palpi and a minute annulus at base of first joint of the flagellum are white or yellowish-white; tegulæ and legs brownish-yellow. Wings hyaline, the stigma lanceolate, pallid within, its outer margins and the internal veins being light brownish.

Type.—Cat. No. 5713, U. S. Nat. Museum. From Popof Island, July 10.

Tribe *RHOGADINII*.Genus *Rhogas* Nees.*RHOGAS HARRIMANI* sp. nov.

Male.—Length 7 mm. Black; an annulus at base of first joint of flagellum, the second dorsal abdominal segment, except narrowly at apex, and the legs, except the apices of hind femora, apical third of their tibiæ and their tarsi, ferruginous; palpi yellowish.

The antennæ are longer than the body; the first joint of the flagellum is the longest, the following joints subequal, all being longer than thick. The head and thorax are finely coriaceous and also punctate, the transverse depression on the pronotum with short elevated lineations, the parapsidal furrows distinct, the mesopleura with a large shining spot at the middle and posteriorly, the metathorax rugulose with distinct pleural and median carinæ, while the metapleura, except at margins, are highly polished. The abdomen is fully as long as the head and the thorax united, with dorsal segments 1 and 2 and base of 3, rugulose, the remainder of the third and the following segments being smooth and shining; segments 1 and 2 have also a longitudinal carina down the center. Wings hyaline, or at most only faintly tinged, the costal veins at apex and the stigma being brown-black, the internal veins light brown, the parastigma and costal and median veins toward their base being yellow; the second cubital cell is oblong and fully twice as long as the first abscissa of the radius, while the submedian cell is very much longer than the median.

Type.—Cat. No. 5714, U. S. Nat. Museum. From Fox Point, July 8. One specimen.

Suborder II. *PHYTOPHAGA* Latreille.Superfamily IX. *SIRICOIDEA* Ashmead.Family *SIRICIDÆ*.Genus *Sirex* Linné.*SIREX FLAVICORNIS* Fabricius.

Sirex flavicornis FABRICIUS, Spec. Insect., I, p. 418, 1781.—FABRICIUS, Mant. Insect., I, p. 257, 1787.—GMELIN, Linné, Syst. Nat. Ed. 13^a, I, p. 2672, 1790.—FABRICIUS, Ent. Syst., II, p. 126, 1793.—FABRICIUS, Syst. Piez., p. 49, 1804.—DALLA TORRE, Cat. Hym., I, p. 385, 1894.—KONOW, Wien. ent. Zeitg., XVII, pp. 75-76, 1898.

Tremex flavicornis LEPELETIER, Encycl. Méth. Ins., x, p. 228, 1825.

Urocerus flavicornis PROVANCHER, Nat. Canad., x, p. 228, 1878.—PROVANCHER, Fn. ent. du Can. Hym., p. 239, 1883.—CRESSON, Syn. Hym. N. Am., p. 173, 1887.—HARRINGTON, Tr. Roy. Soc. Canada, pp. 138, 146, 1893.

From Yukon River; Nushagak River, August 14, 1882 (McKay); Wrangell (H. F. Wickham). This species is widely distributed over British Columbia, Canada and the United States. A single specimen was taken at Kluchefski, Kamchatka, in 1897, by Dr. L. Stejneger.

Superfamily X. TENTHREDINOIDEA Ashmead.

Family LYDIDÆ.

Genus *Itycorsia* Konow.

ITYCORSIA MARGINIVENTRIS (Cresson).

Lyda marginiventris CRESSON, Trans. Am. Ent. Soc., VIII, p. 29, 1880.—

CRESSON, Syn. Hym. N. Am., p. 170, 1887.

Pamphilius marginiventris KIRBY, List Hym. Brit. Mus., I, p. 345, 1882.—

DALLA TORRE, Cat. Hym., I, p. 433, 1894.

Lyda credita KINCAID, Proc. Wash. Acad. Sci., II, p. 344, 1900.

Type in collection of the American Entomological Society. From Sitka.

Genus *Cephaleia* Jurine.

CEPHALEIA NIGROPECTA (Cresson).

Lyda nigropectus CRESSON, Trans. Am. Ent. Soc., VIII, p. 32, 1880.—CRESSON, Syn. Hym. N. Am., p. 171, 1887.

Pamphilius nigropectus KIRBY, List Hym., Brit. Mus., I, p. 347, 1882.—

DALLA TORRE, Cat. Hym., I, p. 435, 1894.

?*Canonydus nigropectus* KONOW, An. K. K. Hofmus. Wien., XII, p. 254, 1897.

Cephaleia nigropectus KINCAID, Proc. Wash. Acad. Sci., II, p. 344, 1900.

Type in collection of the American Entomological Society. From Sitka.

Genus *Bactroceros* Konow.

BACTROCEROS SITKENSIS Kincaid.

Bactroceros sitkensis KINCAID, Proc. Wash. Acad. Sci., II, p. 344, 1900.

Type.—Cat. No. 5280, U. S. Nat. Museum. From Sitka.

BACTROCEROS PALACHEI sp. nov.

Cephaleia sp. KINCAID, Proc. Wash. Acad. Sci., II, p. 344, 1900.

Female.—Length 11 mm. Head rufous with a blackish spot on middle of vertex enclosing the ocelli and extending as a narrow line back to the occiput; antennæ broken off after the third joint, the three joints remaining rufous; the clypeus, the cheeks, the mandibles, a short line along the inner margins of the lateral lobes of vertex, a broader line extending from summit of eyes backwards to the occiput, and a short line below it just back of the eyes, yellowish-white; su-

tures of gula black; palpi whitish with the last two joints of the maxillary palpi fuscous. Thorax black, with a spot at apex of scutellum, the upper hind angles of prothorax, the tegulæ, and a spot just in front of the insertion of front coxæ, yellowish-white; legs, except the extreme base of coxæ which is black, and the apex of the hind tibiæ and more or less of their tarsi which are reddish, ivory-white. Wings hyaline, with a very faint indistinct fuscous band across the disk below the stigma, the stigma, the costal, intercostal, lower branch of the subcostal, median and anal veins, yellow, rest of the veins brown. Abdomen reddish, with the first two segments, except medially, and the terminal ventral segment blackish.

Type.—Cat. No. 5741, U. S. Nat. Museum. From Kodiak, July 5 (C. Palache, collector).

Family SELANDRIIDÆ.

Subfamily BLENNOCAMPINÆ.

Genus *Fenusa* Leach.

FENUSA ALASKANA Kincaid.

Fenusa alaskana KINCAID, Proc. Wash. Acad. Sci., II, p. 345, 1900.

Type.—Cat. No. 5281, U. S. Nat. Museum. From Kukak Bay.

Genus *Erythraspides* Ashmead.

ERYTHRASPIDES ASHMEADII Kincaid.

Erythraspides ashmeadii KINCAID, Proc. Wash. Acad. Sci., II, p. 346, 1900.

Type.—Cat. No. 5282, U. S. Nat. Museum. From Sitka.

Genus *Monophadnus* Hartig.

MONOPHADNUS INSULARIS Kincaid.

Monophadnus insularis KINCAID, Proc. Wash. Acad. Sci., II, p. 346, 1900.

Type.—Cat. No. 5283, U. S. Nat. Museum. From Metlakatla.

Subfamily SELANDRIINÆ.

Paraselandria Ashmead.

PARASELANDRIA RUFIGASTRA Kincaid.

Paraselandria rufigastrea KINCAID, Proc. Wash. Acad. Sci., II, p. 346, 1900.

Type.—Cat. No. 5284, U. S. Nat. Museum. From Kukak Bay.

Genus *Pæcilstomidea* Ashmead.

PÆCILOSTOMIDEA MACULATA (Norton).

Harpiphorus maculatus NORTON, Proc. Boston Soc. Nat. Hist., VIII, p. 157, 1861.—PROVANCHER, Add. Fn. Can. Hym., p. 348, 1888.—HARRINGTON, Ins. Life, II, pp. 227-228, 1890.

Emphytus maculatus RILEY, Prairie Farmer, May, 1867.—NORTON, Trans. Am. Ent. Soc., I, p. 232, 1867.—RILEY, Am. Ent., I, pp. 90-91, fig. 76, 1869.—NORTON, Trans. Am. Ent. Soc., IV, p. 80, 1872.—SAUNDERS, Fourth Rep. Ontario Ent. Soc., p. 18, 1873-74.—RILEY, Ninth Rep. Ins. Missouri, pp. 28-29, fig. 10, 1877.—THOMAS, Seventh Rep. Ins. Illinois, p. 111, 1877-78.—PROVANCHER, Nat. Can., X, p. 69, 1878.—FULLER, Amer. Entom., III, p. 109, fig. 36, 1880.—PROVANCHER, Fn. ent. du Can. Hym., p. 195, 1883.—THOMAS, Tenth Rep. Ins. Illinois, p. 68, 1883-84.—FORBES, Fourteenth Rep. Ins. Illinois, p. 77, 1884-85. CRESSON, Syn. Hym. N. Am., p. 160, 1887.

Pæcilstomidea maculatus ASHMEAD, Smith's Ins. New Jersey, p. 606, 1900.—KINCAID, Proc. Wash. Acad. Sci., II, p. 346, 1900.

From Sitka, Yakutat, Virgin Bay.

Family NEMATIDÆ.

Subfamily NEMATINÆ.

Genus *Pachynematus* Konow.

PACHYNEMATUS OCREATUS (Harrington).

Nematus ocreatus HARRINGTON, Can. Ent., XXI, p. 25, 1889.

Pachynematus ocreatus MARLATT, Techn. Ser., No. 3, U. S. Dept. Agric., p. 95, 1896.—KINCAID, Proc. Wash. Acad. Sci., II, p. 347, 1900.

Co-type.—Cat. No. 3488, U. S. Nat. Museum. From Sitka.

PACHYNEMATUS AFFINIS Marlatt.

Pachynematus affinis MARLATT, Techn. Ser., No. 3, U. S. Dept. Agric., p. 97, ♀ ♂, 1896.—KINCAID, Proc. Wash. Acad. Sci., II, p. 347, 1900.

Type.—Cat. No. 1943, U. S. Nat. Museum. From Popof Island.

PACHYNEMATUS ORONUS Kincaid.

Pachynematus oronus KINCAID, Proc. Wash. Acad. Sci., II, p. 347, 1900.

Type.—Cat. No. 5285, U. S. Nat. Museum. From Yakutat Bay.

PACHYNEMATUS PLEURICUS (Norton).

Nematus pleuricus NORTON, Trans. Am. Ent. Soc., I, p. 208, ♀, 1867.—CRESSON, Syn. Hym. N. Am., p. 159, 1887.—DALLA TORRE, Cat. Hym., I, p. 251, 1894.

Pachynematus pleuricus MARLATT, Techn. Ser., No. 3, U. S. Dept. Agric., p. 100, 1896.—KINCAID, Proc. Wash. Acad. Sci., II, p. 348, 1900.

Type.—Cat. No. 5286, U. S. Nat. Museum (male). From Kukak Bay.

PACHYNEMATUS ORARIUS Kincaid.

Pachynematus orarius KINCAID, Proc. Wash. Acad. Sci., II, p. 348, ♀, 1900.

Type.—Cat. No. 5287, U. S. Nat. Museum. From Kukak Bay; Sitka.

PACHYNEMATUS GOTARUS Kincaid.

Pachynematus gotarus KINCAID, Proc. Wash. Acad. Sci., II, p. 348, ♂, 1900.

Type.—Cat. No. 5288, U. S. Nat. Museum. From Popof Island.

Genus Nematus Jurine.

NEMATUS LONGICORNIS Eschscholtz.

Nematus longicornis ESCHSCHOLTZ, Entomogr., p. 95, 1822.—ESCHSCHOLTZ, Naturw. Abh. Dorpat, I, p. 149, 1843.—NORTON, Trans. Am. Ent. Soc., I, p. 202, 1867.—CRESSON, Syn. Hym. N. Am., p. 158, 1887.—DALLA TORRE, Cat. Hym., II, p. 235, 1894.

From Unalaska.

NEMATUS CRASSUS Eschscholtz.

Nematus crassus ESCHSCHOLTZ, Entomogr., p. 93, 1822.—ESCHSCHOLTZ, Naturw. Abh. Dorpat, I, p. 149, 1825.—NORTON, Trans. Am. Ent. Soc., I, p. 213, 1867.—CRESSON, Syn. Hym. N. Am., p. 158, 1887.

From Unalaska.

Genus Pristiphora Latreille.

PRISTIPHORA ORTINGA Kincaid.

Pristiphora ortinga KINCAID, Proc. Wash. Acad. Sci., II, p. 349, ♀, 1900.

Type.—Cat. No. 5290, U. S. Nat. Museum. From Kukak Bay.

PRISTIPHORA ANAKA Kincaid.

Pristiphora anaka KINCAID, Proc. Wash. Acad. Sci., II, p. 350, ♀, 1900.

Type.—Cat. No. 5291, U. S. Nat. Museum. From Kukak Bay.

PRESTIPHORA CIRCULARIS Kincaid.

Prestiphora circularis KINCAID, Proc. Wash. Acad. Sci., II, p. 350, ♀, 1900.

Type.—Cat. No. 5292, U. S. Nat. Museum. From Popof Island.

PRISTIPHORA BUCODA Kincaid.

Pristiphora bucoda KINCAID, Proc. Wash. Acad. Sci., II, p. 350, ♀, 1900.

Type.—Cat. No. 5289, U. S. Nat. Museum. From Berg Bay; Sitka.

PRISTIPHORA KÆBELEI Marlatt.

Pristiphora kæbelei MARLATT, Bull. No. 3, Tech. Ser. U. S. Dept. Agric., p. 119, ♀, 1896.—KINCAID, Proc. Wash. Acad. Sci., II, p. 351, 1900.

Type.—Cat. No. 1960, U. S. Nat. Museum. From State of Washington; Alaska; Kukak Bay.

PRISTIPHORA LENA Kincaid.

Pristiphora lena KINCAID, Proc. Wash. Acad. Sci., II, p. 351, ♂, 1900.

Type.—Cat. No. 5293, U. S. Nat. Museum. From Sitka.

Genus **Euura** Newman.

EUURA INSULARIS Kincaid.

Euura insularis KINCAID, Proc. Wash. Acad. Sci., II, p. 352, ♀♂, 1900.

Type.—Cat. No. 5302, U. S. Nat. Museum. From Popof Island.

Genus **Pontania** Costa.

PONTANIA TUNDRA Kincaid.

Pontania tundra KINCAID, Proc. Wash. Acad. Sci., II, p. 352, ♀♂, 1900.

Type.—Cat. No. 5296, U. S. Nat. Museum. From Popof Island.

PONTANIA POPOFIANA Kincaid.

Pontania popofiana KINCAID, Proc. Wash. Acad. Sci., p. 353, ♀♂, 1900.

Type.—Cat. No. 5294, U. S. Nat. Museum. From Popof Island.

PONTANIA UNGA Kincaid.

Pontania unga KINCAID, Proc. Wash. Acad. Sci., II, p. 354, ♀, 1900.

Type.—Cat. No. 5298, U. S. Nat. Museum. From Popof Island.

PONTANIA ORA Kincaid.

Pontania ora KINCAID, Proc. Wash. Acad. Sci., II, p. 354, ♀, 1900.

Type.—Cat. No. 5297, U. S. Nat. Museum. From Popof Island.

PONTANIA PENINSULARIS Kincaid.

Pontania peninsularis KINCAID, Proc. Wash. Acad. Sci., II, p. 354, ♀, 1900.

Type.—Cat. No. 5301, U. S. Nat. Museum. From Kukak Bay.

PONTANIA ISLANDICA Kincaid.

Pontania islandica KINCAID, Proc. Wash. Acad. Sci., II, p. 355, ♀, 1900.

Type.—Cat. No. 5299, U. S. Nat. Museum. From Popof Island.

PONTANIA GLINKA Kincaid.

Pontania glinka KINCAID, Proc. Wash. Acad. Sci., II, p. 355, ♀♂, 1900.

Type.—Cat. No. 5295, U. S. Nat. Museum. From Popof Island.

PONTANIA KUKAKIANA Kincaid.

Pontania kukakiana KINCAID, Proc. Wash. Acad. Sci., II, p. 356, ♀, 1900.

Type.—Cat. No. 5300, U. S. Nat. Museum. From Kukak Bay.

Genus *Pteronus* Jurine.

PTERONUS SHUMAGENSIS Kincaid.

Pteronus shumagensis KINCAID, Proc. Wash. Acad. Sci., II, p. 357, ♀, 1900.

Type.—Cat. No. 5303, U. S. Nat. Museum. From Popof Island.

PTERONUS ZEBRATUS Kincaid.

Pteronus zebratus KINCAID, Proc. Wash. Acad. Sci., II, p. 357, ♀, 1900.

Type.—Cat. No. 5305, U. S. Nat. Museum. From Yakutat.

PTERONUS RIVULARIS Kincaid.

Pteronus rivularis KINCAID, Proc. Wash. Acad. Sci., II, p. 358, ♂, 1900.

Type.—Cat. No. 5304, U. S. Nat. Museum. From Sitka.

Genus *Amauronematus* Konow.

AMAURONEMATUS ISOLATUS Kincaid.

Amauronematus isolatus KINCAID, Proc. Wash. Acad. Sci., II, p. 358, ♀, 1900.

Type.—Cat. No. 5306, U. S. Nat. Museum. From St. Paul Island.

Family TENTHREDINIDÆ.

Subfamily *DOLERINÆ*.Genus *Dolerus* Jurine.

DOLERUS APRILIS (Norton).

Dosytheus aprilis NORTON, Proc. Boston Soc. Nat. Hist., VIII, p. 151, ♀♂, 1861.—CRESSON, Proc. Ent. Soc. Phila., IV, p. 243, 1865.—NORTON, Trans. Am. Ent. Soc., I, p. 236, 1867.—PROVANCHER, Nat. Canad., x, p. 71, 1878.—PROVANCHER, Fn. ent. du Can. Hym., p. 197, 1883.—CRESSON, Syn. Hym. N. Am., p. 161, 1887.—DALLA TORRE, Cat. Hym., I, p. 3, 1894.—ASHMEAD, Smith's Ins. New Jersey, p. 609, 1900.—KINCAID, Proc. Wash. Acad. Sci., II, p. 359, 1900.

From Orca, Virgin Bay, Yakutat, Kukak Bay.

DOLERUS ELDERI Kincaid.

Dolerus elderi KINCAID, Proc. Wash. Acad. Sci., II, p. 359, ♀♂, 1900.

Type.—Cat. No. 5307, U. S. Nat. Museum. From Popof Island, Kukak Bay.

DOLERUS SERICEUS Say.

Dolerus sericeus SAY, Keatings Narrat. Exp., II, App., p. 320, ♀♂, 1824.—LECONTE, Ed. Say., II, p. 214, 1859.—NORTON, Proc. Boston Soc. Nat. Hist., VIII, p. 154, 1861.—PROVANCHER, Natur. Canad., x, p. 71, 1878.—PROVANCHER, Fn. ent. du Can. Hym., p. 197, 1883.—CRESSON, Syn. Hym. N. Am., p. 161, 1887.—DALLA TORRE, Cat. Hym., I, p. 17, 1894.—ARTEMAN, Smith's Ins. New Jersey, p. 609, 1900.—KINCAID, Proc. Wash. Acad. Sci., II, p. 359, 1900.

From Yakutat, Berg Bay, Sitka, Virgin Bay, Kodiak.

DOLERUS SIMILIS (Norton).

Dosylheus similis NORTON, Proc. Boston Soc. Nat. Hist., VIII, p. 153, ♀, 1861.—NORTON, Trans. Amer. Ent. Soc., I, p. 238, 1867.—PROVANCHER, Nat. Can., x, p. 72, 1878.—PROVANCHER, Fn. ent. du Can. Hym., p. 198, 1883.—CRESSON, Syn. Hym. N. Am., p. 161, 1887.—DALLA TORRE, Cat. Hym., I, p. 171, 1894.—ASHMEAD, Smith's Ins. New Jersey, p. 609, 1900.

From Yukon River.

Subfamily *STRONGYLOGASTERINÆ*.Genus *Emphytus* Klug.

EMPHYTUS ANGUSTUS Kincaid.

Emphytus angustus KINCAID, Proc. Wash. Acad. Sci., II, p. 360, ♂, 1900.

Type.—Cat. No. 5308, U. S. Nat. Museum. From Kukak Bay.

Subfamily *TENTHREDININÆ*.Genus *Pachyprotasis* Hartig.

PACHYPROTASIS NIGROFASCIATA (Eschscholtz).

Tenthredo nigrofasciata ESCHSCHOLTZ, Entomogr., p. 96, 1822.—ESCHSCHOLTZ, Naturw. Abh. Dorpat, I, p. 148, 1823.—NORTON, Trans. Am. Ent. Soc., II, p. 241, 1869.—CRESSON, Syn. Hym. N. Am., p. 168, 1887.

Emphytus? nigrofasciatus KIRBY, List Hym. Brit. Mus., I, p. 204, 1882.—DALLA TORRE, Cat. Hym., I, p. 119, 1894.

Macrophya (Pachyprotasis) omega NORTON, Trans. Am. Ent. Soc., I, p. 280, ♀♂, 1867.

Pachyprotasis omega PROVANCHER, Nat. Can., x, p. 108, 1878.—PROVANCHER, Fn. ent. du Can. Hym., p. 210, 1883.—CRESSON, Syn. Hym. N. Am., p. 166, 1887.—DALLA TORRE, Cat. Hym., I, p. 43, 1894.

Pachyprotasis nigrofasciata KINCAID, Proc. Wash. Acad. Sci., II, p. 360, 1900.

From Unalaska, Popof Island, Unga, Virgin Bay.

Genus **Macrophya** Dahlbom.**MACROPHYA OREGONA** Cresson.

Macrophya oregona CRESSON, Trans. Am. Ent. Soc., VIII, p. 19, ♀, 1880.—CRESSON, Syn. Hym. N. Am., p. 166, 1887.—DALLA TORRE, Cat. Hym., I, p. 55, 1894.—KINCAID, Proc. Wash. Acad. Sci., II, p. 361, 1900.

Type in collection of the American Entomological Society. From Seldovia.

Genus **Tenthredo** Linné.**TENTHREDO AURARIA** Konow.

Tenthredo auraria KONOW, Ent. Nachr., xxv, p. 154, ♀, 1899.

From Wrangell.

TENTIIREDO FERRUGINEIPES Cresson.

Tenthredo ferrugineipes CRESSON, Trans. Am. Ent. Soc., VIII, p. 22, ♀, 1880.—CRESSON, Syn. Hym. N. Am., p. 168, 1887.—DALLA TORRE, Cat. Hym., I, p. 91, 1894.—KINCAID, Proc. Wash. Acad. Sci., II, p. 361, ♀♂, 1900.

Type in collection of the American Entomological Society. From Sitka, Virgin Bay, Seldovia, Kodiak, Kukak Bay, Popof Island.

TENTIIREDO VARIPICTA Norton.

Tenthredo varipicta NORTON, Trans. Am. Ent. Soc., II, p. 234, ♀, 1868.—CRESSON, Syn. Hym. N. Am., p. 169, 1887.—DALLA TORRE, Cat. Hym., I, p. 106, 1894.—KINCAID, Proc. Wash. Acad. Sci. II, p. 361, 1900.

Type in collection of the American Entomological Society. From Fox Point, Berg Bay, Sitka, Yakutat, Seldovia, Kodiak, Kukak Bay, Popof Island.

TENTHREDO EVANSII (Harrington).

Tenthredopsis Evansii HARRINGTON, Can. Ent., XXI, p. 98, 1889.—DALLA TORRE, Cat. Hym., I, p. 30, 1894.

Tenthredo Evansii KINCAID, Proc. Wash. Acad. Sci., II, p. 362, ♀♂, 1900.

Type in collection of W. H. Harrington, Ottawa, Canada. From Sitka, Yakutat, Kodiak, Virgin Bay.

TENTHREDO LINEATA Provancher.

Tenthredo lineata PROVANCHER, Natural. Can., x, p. 198, ♀, 1878.—CRESSON, Trans. Am. Ent. Soc., VIII, p. 43, 1880.—PROVANCHER, Fn. ent. Can. Hym., p. 224, 1883.—CRESSON, Syn. Hym. N. Am., p. 168, 1887.—DALLA TORRE, Cat. Hym., I, p. 95, 1894.—ASHMEAD, Smith's Ins. New Jersey, p. 612, 1900.—KINCAID, Proc. Wash. Acad. Sci., II, p. 362, 1900.

Type in Parliament Building, Quebec, Canada. From Sitka, Virgin Bay, Gustavus Point, Seldovia.

TENTHREDO FLAVOMARGINIS (Norton).

Allantus flavomarginis NORTON, Journ. Boston Soc. Nat. Hist., VII, p. 254, ♀, 1860.

Tenthredo flavomarginis NORTON, Trans. Am. Ent. Soc., II, p. 238, 1869.—CRESSON, Syn. Hym. N. Am., p. 168, 1887.—DALLA TORRE, Cat. Hym., I, p. 93, 1894.—ASHMEAD, Smith's Ins. New Jersey, p. 611, 1900.—KINCAID, Proc. Wash. Acad. Sci., II, p. 362, 1900.

Type in collection of the American Entomological Society. From Berg Bay, Yakutat, Seldovia.

TENTHREDO NIGRICOLLIS Kirby.

Tenthredo nigricollis KIRBY, List Hym. Brit. Mus., I, p. 308, ♀, pl. 12, f. 3, 1882.—CRESSON, Syn. Hym. N. Am., p. 168, 1887.—DALLA TORRE, Cat. Hym., I, p. 99, 1894.—KINCAID, Proc. Wash. Acad. Sci., II, p. 362, 1900.

? *Tenthredo semicomis* HARRINGTON, Can. Ent., XXI, p. 98, ♂, 1889.—DALLA TORRE, Cat. Hym., I, p. 104, 1894.

Type in British Museum. From Sitka, Seldovia, Kukak Bay.

TENTHREDO ERYTHROMERA Provancher.

Tenthredo erythromera PROVANCHER, Add. Fn. du Can. Hym., p. 13, ♀, 1885.—CRESSON, Syn. Hym. N. Am., p. 168, 1887.—DALLA TORRE, Cat. Hym., I, p. 90, 1894.—KINCAID, Proc. Wash. Acad. Sci., II, p. 363, 1900.

Type in Parliament Building, Quebec, Canada. From Sitka, Metlakatla, Muir Inlet, Seldovia, Kukak Bay, Yakutat, Kodiak.

TENTHREDO MELANOSOMA Harrington.

Tenthredo melanosoma HARRINGTON, Can. Ent., XXVI, p. 194, ♀, 1894.—KINCAID, Proc. Wash. Acad. Sci., II, p. 363, 1900.

Type in collection of W. H. Harrington, Ottawa, Canada. From Wrangell, Sitka, Seldovia, Yakutat, Kodiak.

TENTHREDO HARRIMANI Kincaid.

Tenthredo harrimani KINCAID, Proc. Wash. Acad. Sci., II, p. 363, ♀, 1900.

Type.—Cat. No. 5310, U. S. Nat. Museum. From Popof Island.

TENTHREDO DISSIMULANS Kincaid.

Tenthredo dissimulans KINCAID, Proc. Wash. Acad. Sci., II, p. 363, ♀♂, 1900.

Type.—Cat. No. 5312, U. S. Nat. Museum. From Popof Island, Kukak Bay.

TENTHREDO BIVITTATA Kincaid.

Tenthredo bivittata KINCAID, Proc. Wash. Acad. Sci., II, p. 364, ♀, 1900.

Type.—Cat. No. 5311, U. S. Nat. Museum. From Popof Island.

Genus *Allantus* Jurine.

ALLANTUS HERACLEI Kincaid.

Allantus heraclei KINCAID, Proc. Wash. Acad. Sci., II, p. 364, 1900.

Type.—Cat. No. 5309, U. S. Nat. Museum. From Popof Island.

Family Cimbicidæ.

Subfamily Cimbicinæ.

Genus *Cimbex* Olivier.

CIMBEX AMERICANA Leach.

Tenthredo femorata ABBOT (*nec* Linné), Drawings Ins. of Georgia, XII, pl. 61, ♀, 1792.

Cimbex Americana LEACH, Zool. Miscell., III, p. 104, ♂, 1817.—LEPELETIER, Monogr. Tenthred., p. 33, 1823.—HARRIS, Treat. Ins. Inj. Veg. Mass., p. 374, 1841.—NORTON, Proc. Ent. Soc. Phila., I, pp. 201-202, 1862.—NORTON, Trans. Am. Ent. Soc., I, p. 40, ♀♂, 1867.—PROVANCHER, Natural Can., x, p. 16, f. 2, 1878.—PROVANCHER, Fn. ent. du Can. Hym., p. 177, f. 28, 1883.—RILEY, Rep. Agri. Dept., pp. 334-336, pl. 5, f. 1st, 1884.—MINOT, Arch. Mikr. Anat., XVIII, p. 37 ff., pl. 7, 1886.—CRESSON, Syn. Hym. N. Am., p. 177, 1887.—WEBSTER, Ins. Life, II, pp. 228-230, f. 45, 1890.—PACKARD, Rep. U. S. Ent. Comm., v, p. 584, f. 194, 1890.—TOWNSEND, Can. Ent., XXIV, p. 126, 1892.—ALDRICH, Can. Ent., XXIV, p. 144, 1892.—DALLA TORRE, Cat. Hym., I, p. 369, 1894.—KINCAID, Proc. Wash. Acad. Sci., II, p. 365, 1900.

From Kodiak.

Genus *Trichiosoma* Leach.

TRICHIOSOMA TRIANGULUM Kirby.

Trichiosoma triangulum KIRBY, Faun. Bor. Amer., IV, p. 254, 1837.—NORTON, Proc. Ent. Soc. Phila., III, p. 5, 1864.—NORTON, Trans. Am. Ent. Soc., I, p. 43, ♀♂, 1867.—BETHUNE, Can. Ent., VIII, p. 158, 1875.—PROVANCHER, Natural Can., x, p. 17, 1878.—PROVANCHER, Fn. ent. du Can. Hym., p. 177, 1883.—CRESSON, Syn. Hym. N. Am., p. 156, 1887.—DALLA TORRE, Cat. Hym., I, p. 365, 1894.—ASHMEAD, Smith's Ins. New Jersey, p. 612, 1900.

Type in British Museum. From Nushagak River (Chas. W. McKay).

TRICHIOSOMA ALEUTIANUM Cresson.

Trichiosoma aleutianum CRESSON, Trans. Am. Ent. Soc., VIII, p. I, ♀, 1880.
Trichiosoma triangulum var. *aleutianum* CRESSON, Syn. Hym. N. Am., p. 156, 1887.—DALLA TORRE, Cat. Hym., I, p. 366, 1894.—KINCAID, Proc. Wash. Acad. Sci., II, p. 365, 1900.

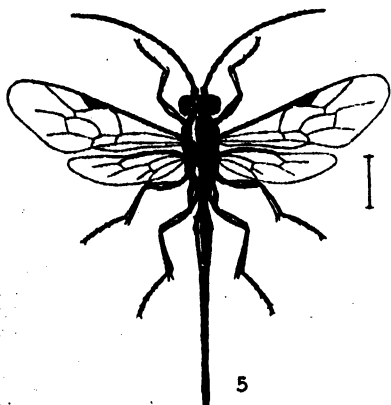
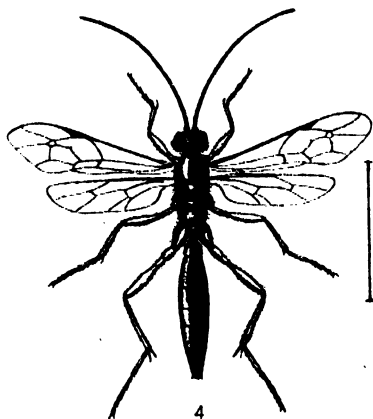
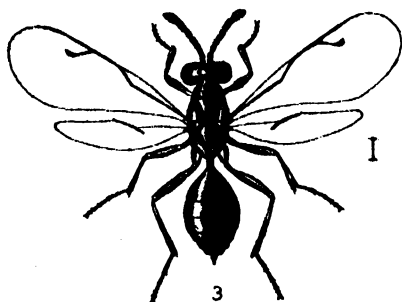
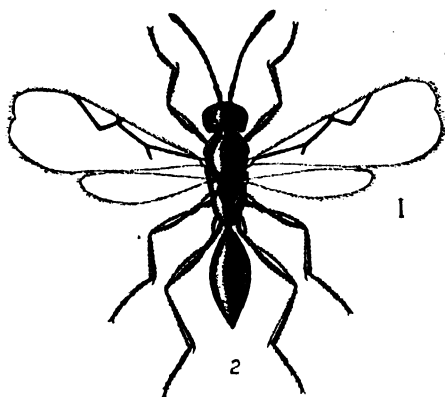
Type in collection of the American Entomological Society. From Aleutian Islands, Kukak Bay, Kodiak, Popof Island.

PLATE II.

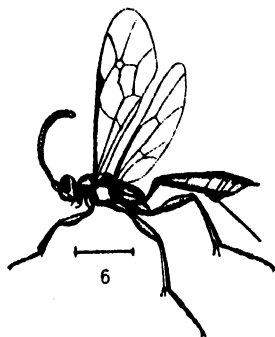
[Proc. Wash. Acad. Sci., Vol. IV, Pl. IX.]

- FIG. 1. *Psithyrus kodiakensis* Ashm. ♂.
2. *Tetrarhapta alaskensis* Ashm. ♀.
3. *Terobia vulgaris* Ashm. ♀.
4. *Automalus nigropilosus* Ashm. ♂.
5. *Exolytus clypeatus* Ashm. ♀.
6. *Plectocryptus yakutatensis* Ashm. ♀.

The black hair-line at the side or beneath the figures represents the natural length of the specimen.



L. L. Howarth, del.



Helwig, in, Burm.

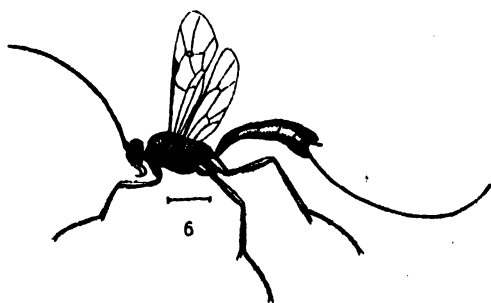
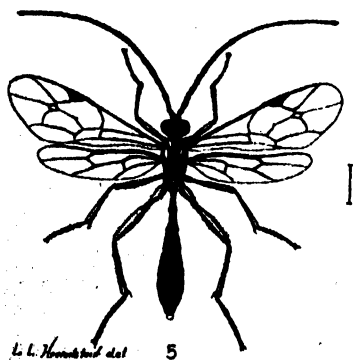
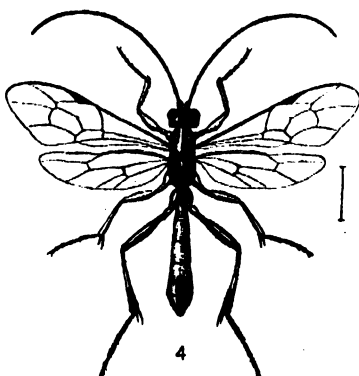
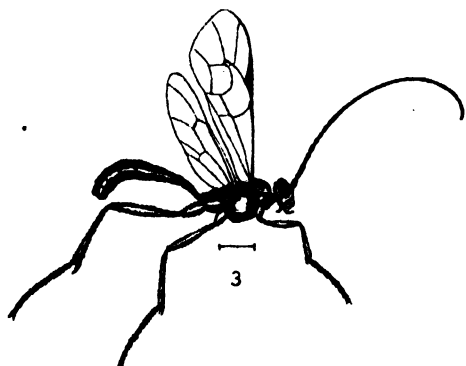
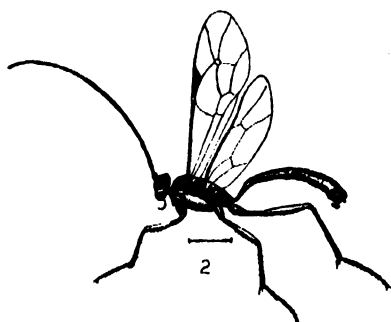
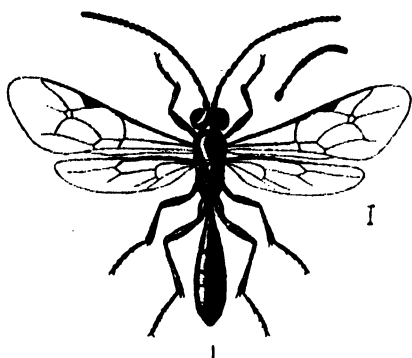
PLATE III.

[Proc. Wash. Acad. Sci., Vol. IV, Pl. X.]

- FIG. 1. *Bathymetis simillima* Ashm. ♂.
2. *Harrimaniella kukakensis* Ashm. ♂.
3. *Trevoria yakutatensis* Ashm.
4. *Hyposyntactus flavifrons* Ashm. ♂.
5. *Dallatorrea armata* Ashm. ♂.
6. *Pimplopterus alaskensis* Ashm. ♀.

[266]

(272)



L. L. Howard del.

Helioptus (H. P.)

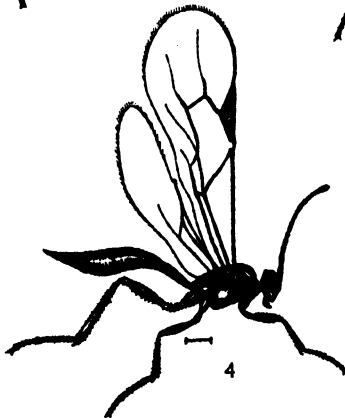
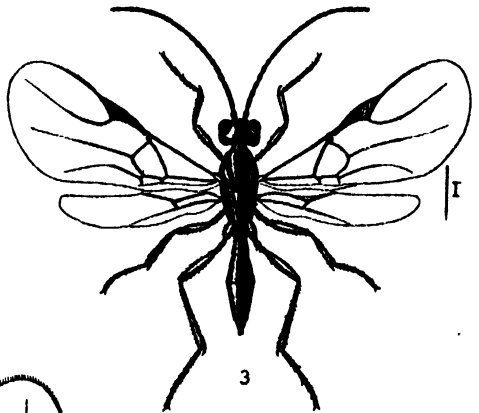
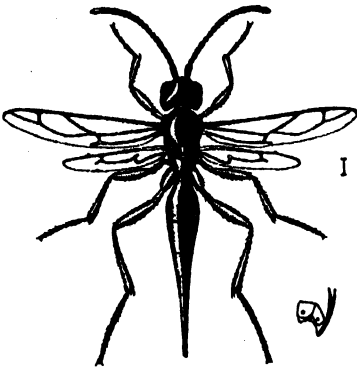
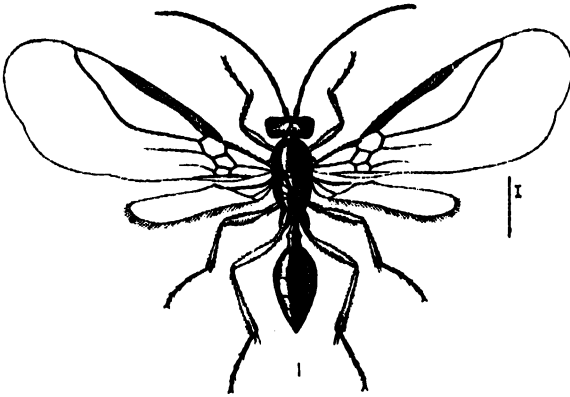
PLATE IV.

[Proc. Wash. Acad. Sci., Vol. IV, Pl. XI.]

- FIG. 1. *Liposcia dubiosa* Ashm. ♂.
2. *Synoplus brevipennis* Ashm. ♀.
3. *Praon alaskensis* Ashm. ♂.
4. *Aphidius frigidus* Ashm. ♀.

[268]

(274)



L. L. Howard del.

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INDEX

(New genera and species and the pages on which they are described are in black-face type; synonyms in parenthesis.)

- Aciastus rufipes** 193
Aclista californica 145
Acrolyta aciculata 192
 karlukensis 192
Ænoplex rufipes 194
Agromyza lacteipennis 78
 neptis 77
Algina alaskensis 194
Allantus flavomarginis (268)
 heraclei 104, 269
Alloxyta alaskensis 148
Alysia fossulata (247)
 manducator 124, 247
 stercoraria (247)
Amalopsis diaphana 2, (13)
 vitripennis (13)
Amauronematus isolatus 98, 265
Ameloctonus popofensis 243
Anaclinia nemoralis 5
Anarcha coxalis 247
Andrena frigida 137
Anomalon mellipes (208)
Anthomyia alcathæ (62)
 mystacea 61
 radicum 61
Anthomyza hirsutula (58)
 murina (66)
Apanteles yakutatensis 255
Apathus insularis (136)
Aphidius frigidus 250, 251, 252, Pl. IV,
 f. 4
 glacialis 250, 251
 paulensis 250, 251, 252-253
 propinquus 251
Apterina politus (78)
Aptilotus politus 78
Arachnophila septentrionalis 111, 140
Arcophila flagrans 48
Aricia albifrons (60)
 ambigua (61)
 brunneinervis (56)
 decrepita (66)
 fabricii (65)
 frenata (58)
 hirsutula (58)
 lucorum (56)
 septentrionalis (56)
 silvestris (66)
Ariphia pretiosa (65)
Ascia globosa (47)
Ashmead, W. H., Hymenoptera 119-
 274, Pls. II-IV
Asynocrita sp. 169
Atmetus insularis 237
Atractodes yakutatensis 175
Atrometus alaskensis 239
Automalus nigropilosus 154, Pl. II, f. 4

Baccha obscuricornis 48
Bachia nigra 191
Bactroceros palachei 260
 sitkensis 84, 260
Bassus manducator (247)
 pulchripes 230
 tibialis (232)
Bathymetis bicolor 182, 183, 188
 confusa 180, 181, 182, 186
 imitator 180, 182, 183
 nigricornis 179, 180, 183
 quadriceps 181, 182, 187
 rubrocincta 181, 182, 184
 simillima 180, 181, 182, 185, Pl. III,
 f. I
 simulans 180, 184
 stimulator 181, 182, 187
 ungæ 180, 182, 186

- Beris annulifera* 20
Biblio obscurus 8
 variabilis 8
Bioblapsis tricineta 230
Blepharipus ater 110, 138
Blepharoptera leucostoma (71)
Boletina grœnlandica 5
 inops 5
Bombus alaskensis 134
 californicus 130
 carlei (132)
 columbicus (130)
 couperi 132
 dimidiatus 135-136
 flavifrons (130), (133)
 frigidus 132
 gelidus 133, (133)
 interruptus (136)
 juxta 133
 kincaidii (133)
 lacustris (134)
 mckayi 131
 melanopyge (134)
 melanopygus 124, (133), 134
 menestriesii (134)
 mixtuosus 134
 moderatus 124, 129
 modestus (129)
 nearcticus 133
 neglectulus 130-131
 nevadensis 130
 oregonensis 132
 parvulus (133)
 pennsylvanicus (130)
 pleuralis 124, 133
 polaris 133
 proximus 130
 prunellæ (132)
 sitkensis 132
 suckleyi (136)
 sylvicola 133
 vosnesenski (130)
Borborus annulus 78
Brachyopa notata 48
Bracon manducator (247)
Brephoctonus flavosus 235, 238

Cænonydus nigropectus (260)
Callimome cecidomyiæ (149)

Calliphora viridescens 54
 vomitorea 54
Calliphurus affinis 224, 227
 alaskensis 224, 226
 clypeatus 224, 226
 confusus 226, 229
 frigidus 225, 228
 glacialis 225, 228
 kukakensis 225, 228
 minor 225, 227
 perplexus 225, 228
 popofensis 225, 227
Camarotops kodiakensis 238
Campoplex laticinctus 240
 nigripes (240)
Catastenus alaskensis 246
 trifasciatus 246
Cechemus manducator (247)
Cecidomyia communis 149
Centeterus dorsator 167
Cephaleia nigropecta 260
 nigropectus 84
 sp. 84, (260)
Ceratopogon arcticus 10
 cilipes 11
 femoratus 10
 hirtulus 10
Ceroxys canus (73)
Chasmatonotus univittatus 9
Chelonus iridescens 253
Chilosia alaskensis 41
 borealis 40
 gracilis (41)
 lasiophthalma 41
 occidentalis 40
 plutonía 41
 pulchripes 42
 tristis 41
Chironomus femoratus 2, (10)
Chirosia glauca 66
 thinobia 67
Chlorops producta 77
 sahlbergi 77
 scabra 77
Chrysops nigripes 20
Cimbex americana 105, 269
Clytochrysus gracilissimus 110, 138
Cœlopa frigida 74
 nitidula 74

- Cænosia albifrons** 60
 canescens (59)
 fuscopunctata 59
 lata 59
 ovata (59)
Copromyza frigida (74)
Coquillett, D. W., *Diptera* 1-78
Cordylura pilosa (70)
 præusta 70
 variabilis 70
 vittipes 70
Cosmoconus canadensis 221
Crabro ater (110), (138)
 contiguus (138)
 gracilissimus (110), (138)
 parvulus (110), (137)
 succinctus (138)
 vicinus (110), (138)
Cratichneumon alaskensis 162, 163
 confusus 162, 164
 kodiakensis 162, 163
 popofensis 162, 165
 yakutatensis 162, 163
Cremnodes alaskensis (196)
Criorhina armillata 50
 scitula 50
 tricolor 50
Cryptoideus sitkensis 199
Cryptus sp. (209)
Cteniscus clypeatus 217
 nigrofemorialis 217
Cubocephalus alaskensis 209
 atrocoxalis 208, 209
 nigricornis 209-210
Culex consobrinus 9
 impiger 8
Cylindrotoma juncta 15
Cylloceria fuscolina (201)
Cynomyia americana (54)
 cadaverina 54
 hirta (54)
 mortisequa 54
Cyrtoma pilipes 26
Cyrtoneura 4-signata (55)

Dallatorrea 211
 armata 211, Pl. II, f. 5
Deleter flavifrons 235
 kincaidi 235

Delocarpa sitkensis 248
Desmlostoma kukakense 257
Diaborus citrifrons 218
 sexmaculatus 218
Diadocidia borealis 4
 ferruginosa 4
Dicranomyia halterata 12
 infusata 12
 venusta 11
Dicranota argentea 15
Didea laxa 47
Didyma pullula 52
Dilophus serraticollis 8
Diptera 1-78
Dolerus aprilis 99, 125, 265
 elderi 99-100, 266
 sericus 99, 266
 similis 83, 266
Dolichocrabro wickhami 109, 139
Dolichopus barycnemus 38-39
 discifer 37
 festinans 38
 lobatus 39
 longimanus 39
 pennitarsis (37)
 plumipes 37
 plumitarsis 39
 stenhammari 38
 tanypus (37)
 varipes 39
 xanthocnemus 38
Dosytheus aprilis (265)
 similis (266)
Drosophila flavicola (76)
Dryomyza anilis (71)
 pallida (71)
Dyscoletes alaskensis 253

Echinomyia algens 53
Echthrodica clypearia 205
 gelida 205
Echthrus nigricornis (209)
Eclitus yakutatensis 210
Ectemnius parvulus 110, 137
Elachistus glacialis 153
Elampus purpurascens (141)
 sinuosum (141)
 sinuosus (141)
Emphytus angustus 100, 266

- Emphytus maculatus** (262)
 nigrofasciatus (100), (266)
- Empis brachysoma** 23
 clauda 21
 conjuncta 25
 fumida 23
 glabricula (35)
 infumata 23
 laniventris 22
 pellucida 22-23
 poplitea 21
 triangula 24
 virgata 22
- Enicospilus purgatus** 125, 239
- Enizemum tibiale** 232
- Ephydra stagnalis** (76)
- Epiurus atrocoxalis** 206, 207
 bicoloripes 206, 207
- Eriplatys sitkensis** 168
- Eristalis broussii** (49)
 compactus 49
 flavipes 49
 meigenii 49
 obscurus 50
 occidentalis 49
- Erromenus annulipes** 218
- Erythraspides ashmeadii** 85, 261
- Eucela alaskensis** 148
- Eulophus kukakensis** 153
- Eutanypus borealis** 10
- Eutelus confusus** 151
- Euura insularis** 92, 264
- Exochus curvator** (238)
 fulvipes (238)
 lævis (239)
- Exolytus alaskensis** 170, 173
 clypeatus 171, 174, Pl. II, f. 5
 concamerus 171
 insularis 170, 174
 ithacæ 171
 kincaidi 170, 173
 niger 170, 172
 perplexus 170, 171
 popofensis 170, 172
 rubrocinctus 171, 175
 sanctipauli 170, 172
 sarpedontis 171
 seldovizæ 171, 174
 ungæ 170, 173
- Exolytus ungensis** 171, 175
- Exothecus alaskensis** 258
- Fenusa alaskana** 65, 261
- Formica neorufibarbis** 115, 142
- Formicidæ** 113-117
- Fucellia fucorum** 67
- Gemophaga rufa** 229
- Gloma obscura** 26
 scopifera 26
- Glypta kukakensis** 207
 popofensis 207
- Graphomyia americana** (55)
 maculata 55
- Gyrocampa alaskensis** 248
- Habromma nigrum** 194
- Harpiphorus maculatus** (262)
- Harriman, E. H.**, acknowledgment to
 14
 genus named for 204
 species named for 14, 103, 259
- Harrimaniella** 204
 kukakensis 204, Pl. III, f. 2
- Hedychrum janus** (141)
 sinuosum (141)
- Hedylus crassicornis** 191
 sp. 191
- Helobia hybrida** 13
- Helomyza zetterstedtii** 71
- Helophilus canadensis** 50
 dychei 50
 lunulatus 50
- Hemerodromia valida** (37)
- Hesperimus brevifrons** 4
- Heteromyza buccata** 72
 oculata 72
- Hexamitocera cornuta** 70
- Hilara aurata** 25
 quadrivittata 26
 transfuga 25
- Himertosoma schmiedeknechti** 200-201
- Holcostizus yukonensis** 208
- Homalomyia flavibasis** 61
 flavivaria 60
- Homotropus alaskensis** 232
- Hydrellia scapularis** 75
- Hydrophoria ambigua** 61

- Hydrophorus glaber** 40
Hyetodesia brunneinervis 56
 lucorum 56
 septentrionalis 56
 varipes 55
 villicrura 57
Hylemyia alcaethæ 62
 fabricii 65
 flavicaudata (62)
 linearis 63
 marginata 62
 simpla 64
 spiniiventris 63
 strigata (62)
 variata 62
Hylephila silvestris 66
Hymenoptera 119-274, Pls. II-IV
 tabular exhibit of Alaskan 126-129
Hypocryptus kodiakensis 213, 214
 popofensis 213, 214
 seldoviæ 213, 215
 tibialis 213, 215-216
 variegatipes 213, 214
Hypoleptus alaskensis 233
 glacialis 234
Hyposyntactus 223
 flavifrons 223-224, Pl. III, f. 4
Hypothereutes annulipes 242

Ichneumon brevipennis 157, 161
 cervulus 156, 159
 curvator (238)
 glacialis 156, 160
 imitator 155, 157
 kincaidi 156, 158
 kodiakensis 156, 159
 manducator (247)
 orevipennis 157
 popofensis 156, 160
 simulator 156, 159
 sitkensis 155, 158
 wilsoni 156, 161
Ichneutes alaskensis 257
 popofensis 256
 reunitor 124, 256
Ilapinastes incertus 196
Ischnoscopus yakutatensis 242
Ischnus wilsoni (161)
Ischrestia uncinata 196

Jurgus alaskensis 245
Itycorsia marginiventris 84, 260

Kincaid, T., Sphegoidea and Vespoidea
 107-112
 Tenthredinoidea 79-105

Lampronota gelida (205)
 lugubris 201
Laslops calvicrura 58
 frenata 58
 hirsutula 58
Lasius niger 124
 niger sitkænsis 115, 142
Lauxania cylindricornis 74
Leptis dimidiata 20
 pruinosa 20
Leptothorax kincaidi 116, 141
Leria fraterna 71
 leucostoma 71
Leucozona leucorum 44
Limnerium yakutatense 243
Limnobia punctipennis (13)
 sciophila 12
Limnophila indistincta 13
 unica 13
Limnophora nobilis 59
Limonia hybrida (13)
Linnæmyia picta 52
Liposcia dubiosa 249, Pl. IV, f. 1
Lissa cornuta (70)
Lissonata alaskensis 203
 ruficoxis 124, 203
Lonchæa albitarsis 73
 deutschii 73
 hyalinipennis 73
Lucilia cæsar 54
Lyda credita (260)
 marginiventris (260)
 nigropectus (260)
Lygocerus alaskensis 146

Macrodyctium politum 258
Macrophya omega (100), (266)
 oregona 101, 267
Mantipcza valida 37
Medeterus glaber (40)
Melanichneumon seldoviæ 161
Melanosstoma glacialis (47)

- Melanostoma mellinum** 42
 trichopus 42
Meliera canus 73
Mesembrina latreillei 55
Mesochorus frontalis 244, 245
 kincaidi 244
 orca 244, 245
Mesoleius aleutianus 230
 canadensis (221)
 stejnegeri 229
Mesoleptus concolor (217)
 strigosus (212)
 unalaskæ 216
Mesostenus longicaudus (212)
Metacælus lævis 125, 239
Microcryptus alaskensis 190
 trifasciatus 190
Micropalpus picta (52)
Microphorus atratus 26
 crocatus 27
 flavipilosus 27
Microplectron alaskensis 216
Microplitis alaskensis 255
Mimesa propinqua 110, 139
Molophilus colonus 13
 falcatus 13
 paulus 13
Monoblastus niger 219
Monophasmus insularis 86, 261
Musca ambigua (61)
 aterrima (51)
 cæsar (54)
 casei (75)
 cylindricornis (74)
 leucorum (44)
 lucorum (56)
 lupulina (74)
 maculata (55)
 meditabunda (55)
 mellinum (42)
 mortisequa (54)
 plumipes (37)
 radicum (52), (61)
 ribesii (46)
 silvestris (66)
 stercoraria (67)
 suilla (68)
 variata (62)
 vomitioria (54)
Mycetophila nemoralis 2, (5)
Myiolepta bella 48
Myospila meditabunda 55
Myrmica lævinodis 124, 141
 sabuleti lobifrons 117, 141
 sulcinodoides 117, 141
Napomyza lateralis 78
Nematopodius longicaudus 212
Nematus crassus 263
 longicornis 263
 ocreatus (262)
 pleuricus (262)
Nemoræa radicum (52)
Neoscia globosa 47
Necempheria kincaidi 5
Neuroctena anilis 71
Neuroteles americana 235, 238
 dubiosus 234
 liriodendri 235, 238
 ulmicola 235
Ocydromia glabricula 35
Odontomerus mellipes 208
Odyneurus albophaleratus 112, 140
Oedemagena tarandi 52
Oedoparea glauca 72
Oestrus tarandi (52)
Okenia 70
Olesicampa alaskensis 241
Omalus sinuosus 109, 141
Ophion bilineatum 125, 239
 lateralis (239)
 marginatus 236
 purgatus (239)
Oplacantha annulifera (20)
Ornithodes 14
 harrimani 14
Ortalis canus (73)
Orthocentrus californicus (236)
 nigritus 237
Orthochæta pilosa 70
Oscinis carbonaria 77
Pachynematus affinis 87, 89, 262
 gotarus 88, 89, 263
 ocreatus 87, 89, 262
 orarius 88, 89, 263
 oronus 87, 89, 262

- Pachynematus pleuricus* 88, 89, 262
 sp. 83
Pachyprotasis nigrofasciata 100-101, 266
 omega (100), (266)
Pachyrhina vittula 2, 19
Palloptera jucunda 73
Pamphilus marginiventris (260)
 nigropectus (260)
Paniscus alaskensis 243
Panzeria radicum 52
Paraphyto borealis 53
Paraselandria rufigastra 86, 261
Parydra paullula 76
Passalæcus cuspidatus 109, 139
Pedicia obtusa 15
Pegomyia costalis 65
Pelomyia occidentalis 75
Pergande, Theo., Formicidæ 113-117
Pericoma bipunctata 11
Pezomachus alaskensis 199
 nigrellus 198
 obesus 199
Phædroctonus minutus 241
Phænosemus sitkensis 237
Philonygus alaskensis 195
 glacialis 195
Phoneutisca bimaculata 37
Phora fungicola 51
 rufipes 51
Phorbia biciliata 65
 pretiosa 65
Phormia terrænovæ 54
Phthorina borealis 231
Phygadenon californicus 183
 crassipes 183
 sp. (209)
 vulgaris 183
Phytodietus clypearis 201
 flavifrons 201, 202
Phytomyza flavicornis 78
 illicicola 78
 ilicis (78)
 lateralis (78)
Pimpla yakutatensis 206
 yukonensis (208)
Pimplopterus alaskensis 204, Pl. III, f. 6
 yakutatensis 203
Plophila casei 75
Pipiza pisticoides 40
Platychirus æratus 44
 albimanus 44
 peltatus 42
 tenebrosus 42
Platylabus californicus 167
 incabus 166
Platypalpus diversipes 36
 flavirostris 36
 gilvipes 36
 lateralis 35
Plectiscus orcæ 246
Plectocryptus popofensis 188, 189
 yakutatensis 188, 189, Pl. II, f. 6
Plesiognathus rubrocinctus 190
Pœcilostomidea maculata 86, 262
Pogonota kincaidi 69
Polyblastus glacialis 219-220
Polyterus sexcarinatus 223
Pompilus divisus (140)
Pontania gliinka 95, 97, 265
 islandica 95, 97, 264
 kukakiana 96, 265
 ora, 94, 96, 264
 peninsularis 94, 97, 264
 popofiana 93, 96, 97, 264
 tundra 92, 96, 97, 264
 unga 94, 96, 264
Porphyrops consobrinus 40
Praon alaskensis 249, Pl. IV, f. 3
Pristiphora anaka 90, 92, 263
 bucoda, 90, 92, 263
 circularis 90, 92, 263
 kœbeli 91, 92, 264
 lena 91, 92, 264
 ortinga 89, 92, 263
Probolus subdentatus 166
Prochyliza xanthostoma 75
Proctotrypes nigripes 142
Promethes unicinctus 230
Protapanteles alaskensis 253
 alticola 254
 glacialis 254
Psila levis 73
Psithyrus insularis 136
 interruptus (136)
 kodiakensis 136, Pl. II, f. 1
Psychoda pacifica 11
Pteronus rivularis 98, 265

Pteronus shumagensis 97, 265
 zebratus 97, 265
Pyropea furcata (67)

***Rhamphomyia adversa* 32**

albopilosa 32
 anthracodes 34
 atrata 34
 barypoda 31-32
 cinefacta 33
 cineracea 30
 corvina 28
 disparilis 29
 flavirostris 28
 glaucia 30
 irregularis 28
 limata 31
 limbata 28
 macrura 35
 minytus 28
 setosa 33
 villipes 28

Rhaphidolabis debilis 15
Rhincæssa parvula 77
Rhizarcha harringtoni 248
Rhogas harrimani 259
Rhypholophus affinis 12
 flaveolus 12
Rhyssa alaskensis 205

Sapromyza brachysoma 74
 lupulina 74

Scæva arcuata (45)
 macularis (47)

Scaptomyza flaveola 76

Scatella setosa 76
 stagnalis 76

Scatomyza fucorum (67)

***Scatophaga frigida* 68**

furcata 67
 intermedia 68
 islandica 68
 spurca (68)
 squalida (67)
 stercoraria 67
 suilla 68
 thinobia (67)

Scatopse notata 8

Sciara abbreviata 6

Sciara borealis 6
 expollita 6
 grænlandica 6
 iridipennis 6
 tridentata 6

Sciodromia bicolor 37

Sciomyza glabricula 72

Scoliocentra fraterna (71)

Scorpiorus alaskensis 220
 niveicola 220

Sepsis flavimana 75
 referens 75

Sericomyia chalcopyga 49

Simulium argus (7)

fulvum 2
 invenustum 7
 molestum (7)
 ochraceum 2
 pecuarum (7)
 piscicidium (7)
 venustum 7
 vittatum 7

Sirex flavicornis 259

Spania edeta 20

***Spanoctecnus flavopictus* 210**

Sphærophoria sulphuripes 47

Sphegina infuscata 48

Sphegoidea 107-112

Spilomicrus alaskensis 146

Spinolia minuta 192

Stenichneumon unalaskæ 154

Stenomærus borealis 238

Stibentes nigrita 176

***Stiboscopus alaskensis* 176, 177**

ferrugineus 177, 179
 mandibularis 177, 178
 sanctipauli 176, 177
 sitkensis 177, 178
 solitarius 176, 178

Stilpnus hudsonicus (176)

***Sychnoportus longitarsis* 222**

Symphoromyia pullata 20

Symplecta punctipennis (13)

Sympycnus cuprinus 40

Synamphotera bicolor (37)

***Synoplus brevipennis* 232, Pl. IV, f. 2**
 pleuralis 233

Syrphus albimanus (44)
 amalois 45

- Syrphus arcuatus** 45
 bryantii (45)
 contumax 45
 diversipes 45
 geniculatus 47
 glacialis 47
 gracilis 46
 macularis 47
 mentalis 45
 peltatus (42)
 ribesii 46
 sulphuripes (47)
 torvus 46
 trichopus (42)
 velutinus 45

Tabanus insuetus 21
 septentrionalis 20
 sonomensis 21
Tachina algens (53)
 picta (52)
Tapinops abdominalis (236)
 californicus 236
 emarginatus (236)
 pusillus (236)
Telmatogeton alaskensis 9
Tenthredinoidea 79-105
Tenthredo auraria 267
 bivittata 104, 268
 dissimulans 103, 268
 erythromera 103, 268
 evansii 102, 267
 femorata (269)
 ferrugineipes 101, 267
 flavomarginis 102, 268
 harrimani 103, 268
 lineata 102, 267
 melanosoma 103, 268
 mellina 102
 nigricollis 102, 268
 nigrofasciata (100), (266)
 semicomis (268)
 varipicta 101, 267
Tenthredopsis evansii (267)
Tephritis murina 73
Terobia vulgaris 150, Pl. II, f. 3
Tetanocera plumosa 71
Tetrarhapta alaskensis 147, Pl. II, f. 2
Tetrastichus alaskensis 152
 anthracinus 152
Thaumatotypus alaskensis 196
Thereva melanoneura 21
Therospocus kukakensis 197
 popofensis 197, 198
 rufipes 197
Thestis tricineta 193
Thryptocera flavipes 52
Thyreopus succinctus (138)
 vicinius 110, 138
Tipula appendiculata 16
 besselsi 16
 cineracea 18
 fallax 16
 gelida 18
 macrolabis 16
 notata 2, (8)
 septentrionalis 16
 spernax 19
 strigata 16
 tenebrosa 17
Tlemon delicatus 222
Torymus cecidomyia 149
Trematopygus kukakensis 221
Tremex flavicornis (259)
Trevoria yakutatensis 202, Pl. III, f. 3
Trichiosoma aleutianum (105), 269
 triangulum 83, 105, 269
Triclistus curvator 124, 238
Tricyphona diaphana 2, 13
 vitripennis 13
Trineura aterrima 51
 rufipes (51)
Trophoctonus insularis 221
Tryphon alaskensis 221
 canadensis (221)

Urocerus flavicornis (259)

Vespa arenaria (140)
 borealis 112, 140
 marginata 112, 140
Vespoidea 107-112
Volucella facialis 48

Xestophya nigripes 169
 polita 168
Xylorhynchus frigidus 210
Xylota barbata 51

Zachresta kukakensis 241

popofensis 240

Zelotypa alaskensis 143, 145

borealis 143, 144

Zelotypa scutellata 143

Zootrephes insularis 231

Zygota americana 145

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